

# THE MILLING WORLD

AND

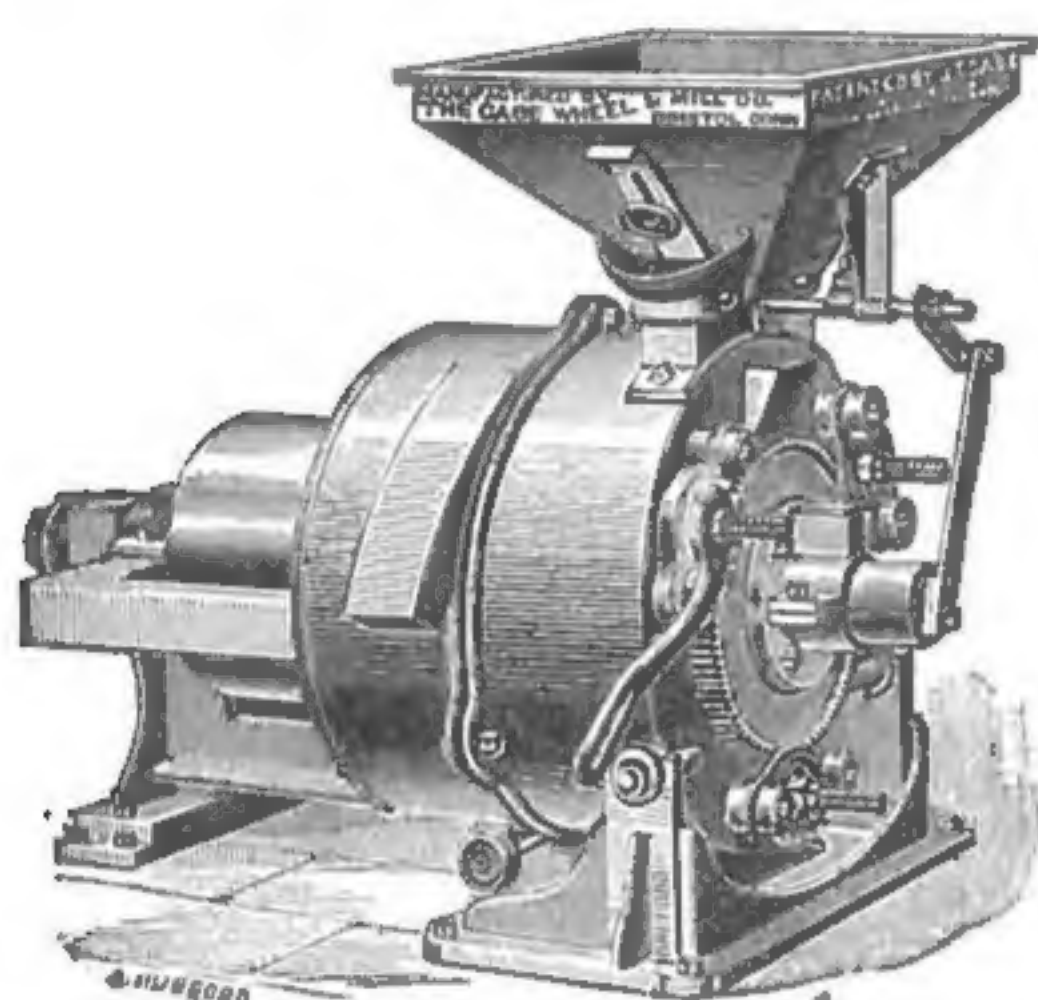
## CHRONICLE OF THE GRAIN AND FLOUR TRADE

PUBLISHED EVERY MONDAY MORNING.

VOL. XXII. No. 12.

BUFFALO, N. Y., MAY 19, 1890.

\$1.50 PER YEAR.



### VICTORY OVER ALL OTHERS. SINGLE & DOUBLE VERTICAL GRINDING MILLS. (J. T. CASE'S PATENT.)

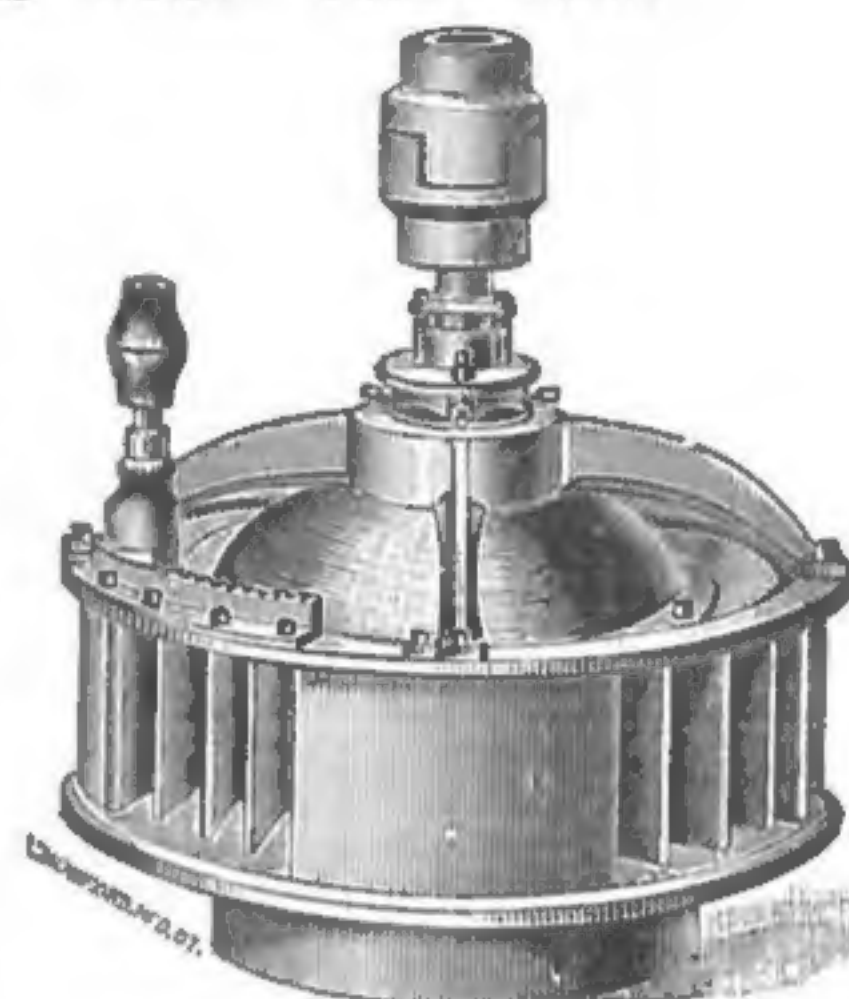
FACTS ARE MIGHTIER THAN ASSERTIONS. READ WHAT THEY SAY:

"Our 20-inch mill made by the Case Wheel & Mill Co. is in every respect satisfactory, easy to handle, and best results obtained of any mill in the country, with same quantity coal and power."—A. S. RUSSELL & Co., Meriden, Conn.  
"Superior to any mill in use."—GEO. WESTON, Bristol, Conn.  
"The best satisfaction in quantity and quality."—CHILD'S ELEVATOR, Manchester, Ct.  
"We take pleasure in recommending it."—GARLAND, LINCOLN & Co., Worcester, Mass.

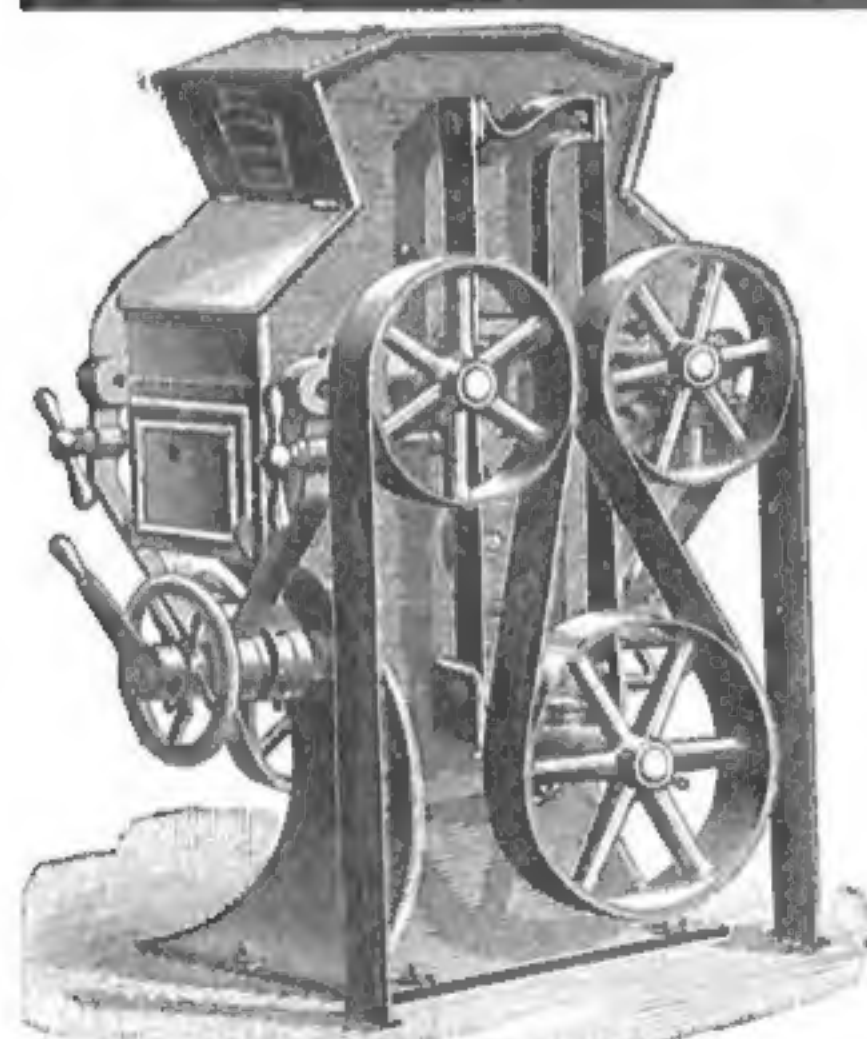
SEND FOR CATALOGUE—ILLUSTRATED AND DESCRIPTIVE.

### The Improved National Turbine Water Wheel

The Best for Economy; The Best for Durability; The Best for Power. ONE THOUSAND FIVE HUNDRED NATIONAL WATER WHEELS IN USE Prove that our Assertions are Supported by the Leading Manufacturers in the Country. Send for illustrated catalogue and prices to the manufacturers.



The Case Wheel & Mill Co., Bristol, Conn.



THE "KEYSTONE."

HONEST WORK.

### GOOD FLOUR.

THE J. B. ALLFREE CO., INDIANAPOLIS, IND.

GENTLEMEN: We have had the mill you built for us in successful operation since November, 1889. We are glad to say that **WE HAVE ONE OF THE BEST 60-BARREL MILLS IN THE STATE.** Our flour will compete with any thing in the market; our percentage of low grade is very small and our clean up is as good as we ask. Your rolls, in our judgment, are superior to any thing on the market, being light running, easily adjusted and having other improvements which we fail to find on any other roller mill. Your "Success" Bolters, Centrifugal, Bran Duster, and in fact all the machinery gives perfect satisfaction. Every thing is smooth, cool and easy, making the least noise of any mill of same capacity we have ever been in when running. A farmer came in a few days ago and said that our mill did not make any more noise than an easy running sewing machine. We honestly believe that our line of machines has more points of excellence than any we have seen, which is evident from the fact that this is the second complete mill which you have built for us (or practically the firm), within four years, both of which are running, this latter being an improvement over the former one, and is what its name implies, a "Model Roller Mill." Wishing you the success you deserve, we are,

### PERFECT MACHINERY.

FREETOWN, IND., April 7, 1890.

Yours truly,

TOBROCK, ALDENHAGEN & CO.

CLOSE FINISH.

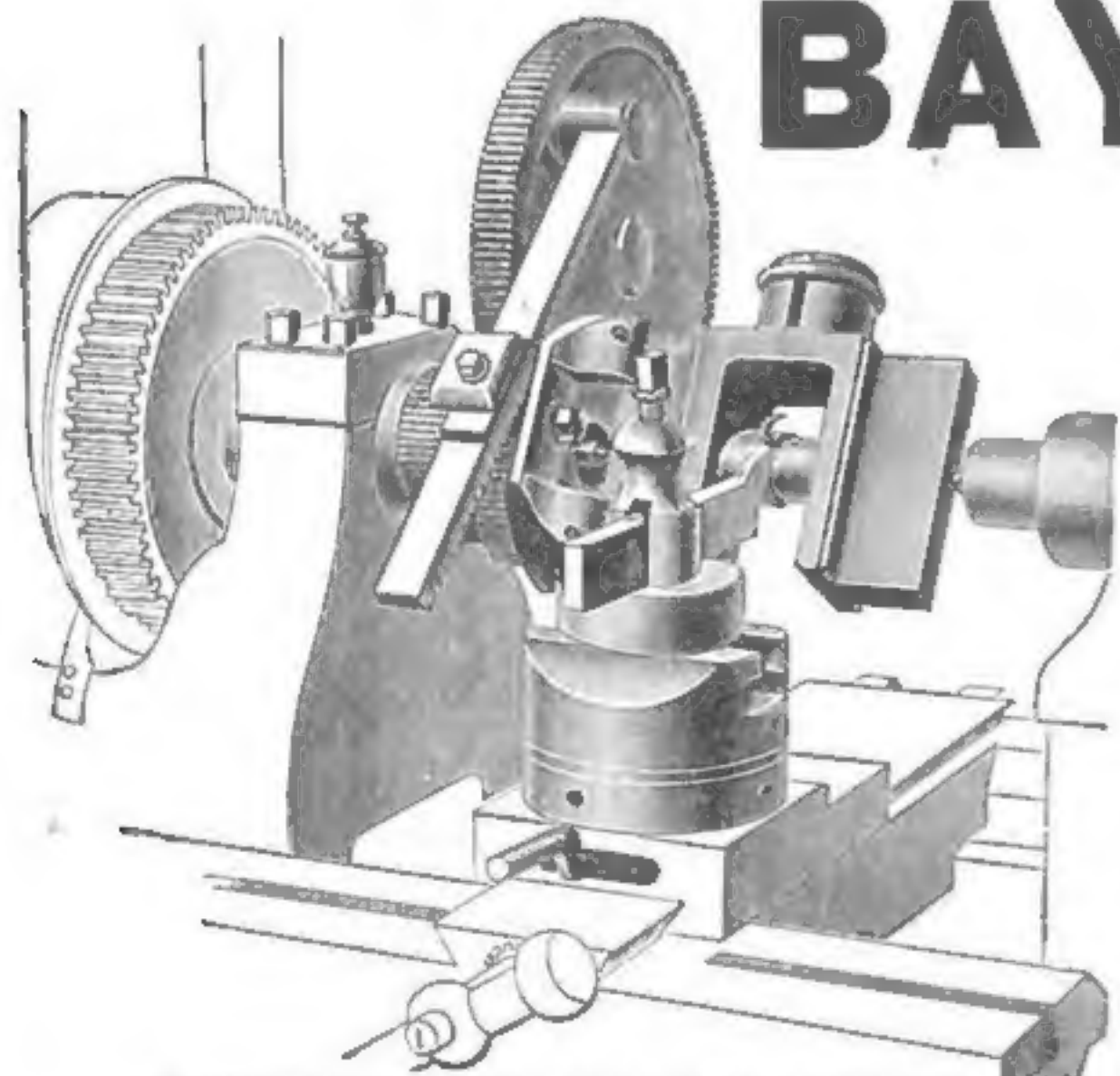
ADDRESS THE J. B. ALLFREE CO., 76 to 86 Shelby Street, INDIANAPOLIS, IND.

## BAY STATE IRON WORKS

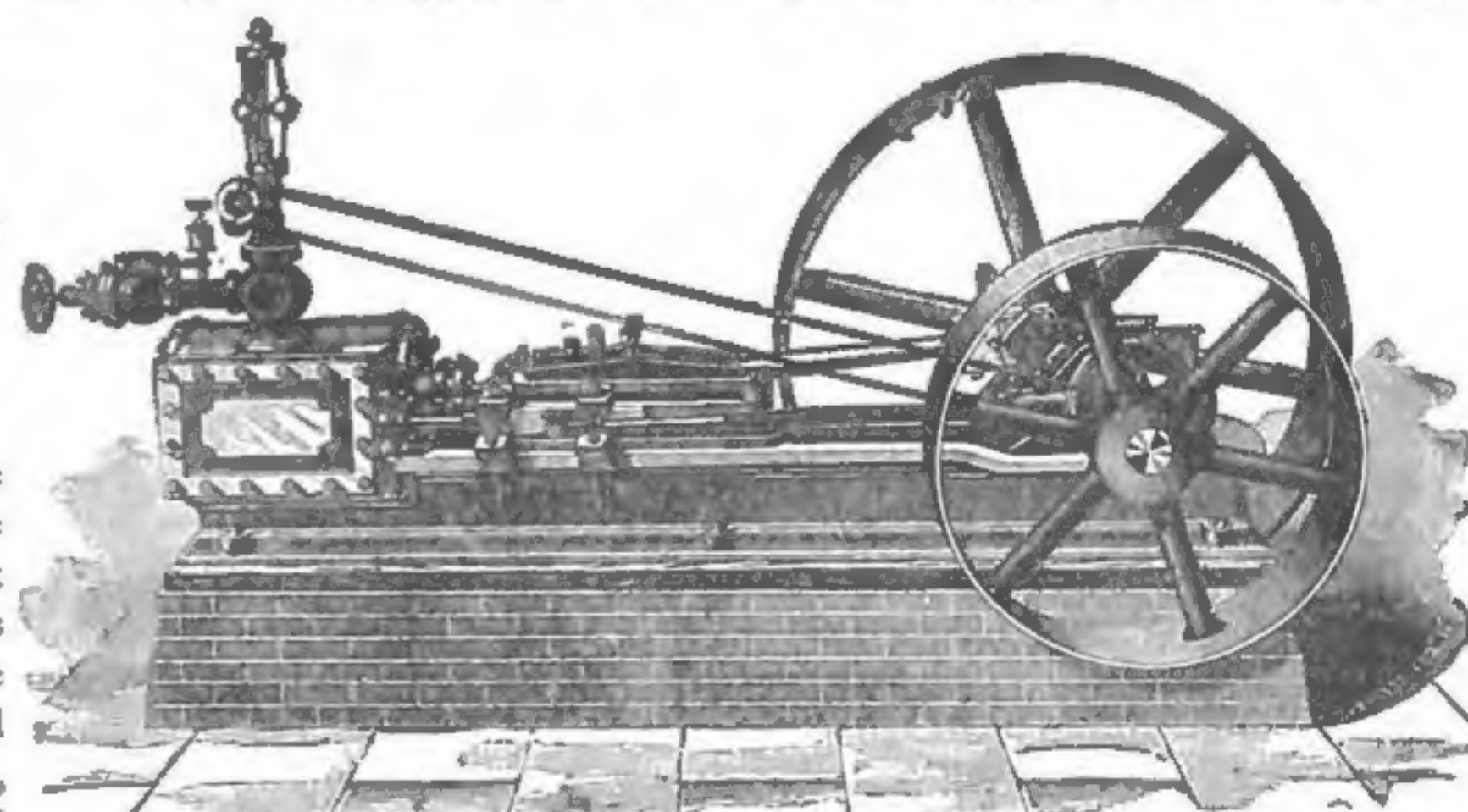
—Manufacturers of—

### Engines, Boilers, —AND— HOISTING MACHINES.

Also the Patent Cross-Head Machine and Acme Cube Pipe Tongs. We make either Center or Side Crank Engines, on same bed. Make engines from 5 to 250 Horse-Power. Have over 3,500 Engines and Boilers and over 1,000 Hoisting Machines in use, and all giving good satisfaction. Send for Catalogues and Prices.



PATENT CROSS-HEAD MACHINE.



IMPROVED DETACHABLE CENTER-CRANK ENGINE.

Noble & Hall, Box 462, Erie, Pa.



# OFFICE OF CASE MANUFACTURING COMP'Y COLUMBUS, OHIO.

## The Case Roller Mills. Over 14,000 Pairs in Use.

PLEASE READ OUR DESCRIPTION OF THEM, EVERY STATEMENT OF WHICH IS ABSOLUTELY TRUE.

PLEASE READ WHAT MILL OWNERS SAY ABOUT THEM.



The accompanying cut is a correct illustration of our latest improved Four Roller Mill. For fine work, great durability, simplicity, and general excellence, they stand "head and shoulders" above all others.

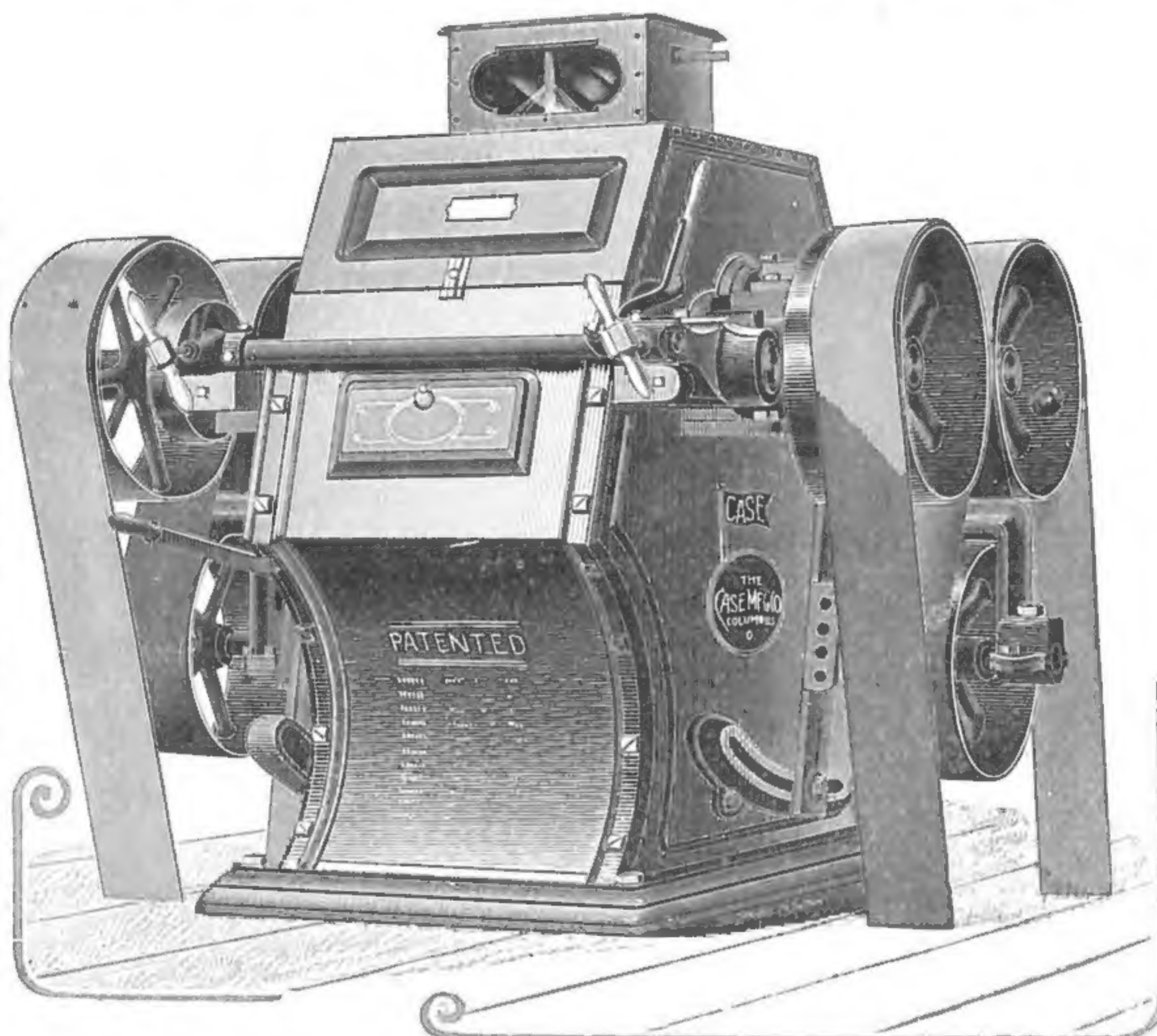
The frame is of iron with a heavy iron base.

The wood-work in top is of select cherry and black walnut, carefully shellacked and varnished.

The handles of adjusting screws and levers are finely nickel plated.

The joints are tight and dustless.

The adjustments easy, simple and perfect.



The roll bearings are wide and finely babbitted.

The belt drive is positive—no little short belts to slip.

The door for examining stock is a great convenience.

The arrangement for leveling rolls, simple and accurate.

The rolls can be thrown apart their entire length by one movement of the lever, and brought back again to original position, requiring no re-setting or experimenting.

Each machine is provided with our AUTOMATIC VIBRATING FEED, which requires no attention, and never fails to spread the feed the entire length of the rolls.



## Please Read These Testimonials.

LITCHFIELD MILLING CO., MANUFACTURERS OF FLOUR. }  
LITCHFIELD, ILL., Sept. 14, 1889.

Case Manufacturing Co., Columbus, Ohio.

GENTLEMEN: We are in receipt of your favor of the 11th inst., and in reply would say we have twenty CASE AUTOMATIC FEEDS on our Dawson and Allis Rolls, and we are greatly pleased with them. We have tested the Feeds thoroughly on different materials, and find they work as well on bran and germ and other soft materials, as they do on middlings. We have derived great benefit from the use of them, and can cheerfully recommend them to the milling fraternity.

Yours truly,

J. C. EDWARDS, General Manager.

OFFICE OF A. J. MILLER, PROPRIETOR WHITE ROSE MILLS. }  
DEALER IN FLOUR, GRAIN AND MILL FEED. }  
METAMORA, IND., Nov. 19, 1889.

Case Manufacturing Co., Columbus, Ohio.

GENTLEMEN: Your Feed arrived O. K., and placed it in working order in a very short time. You have furnished me a daisy Feed. After regulating your Feed, it needs no more attention. It pays for itself in one week over the "Roller Feed" in cleaning up the

stock, and also insuring the superiority at same time. I forward you the amount of bill.

Yours truly, A. J. MILLER.

TREZEVANT, TENN., Feb. 27, 1889.

The Case Manufacturing Co.

GENTLEMEN: We have five double stands of Rolls with Roller Feeds on all of them. A short time ago one of your agents induced us to try one of your Automatic Shaker Feeds. We find that it works much better than the Roll Feed, distributing the material the whole length of the Roll. We heartily recommend your feeds to any one wishing to put in new machinery.

Respectfully yours, FUQUA, HARRIS & CO.

[W. C. MANSEFIELD & CO., MERCHANT MILLERS. }  
CLEVELAND, TENN., Aug. 29, 1889. }

Case Mfg. Co., Columbus, O.

GENTLEMEN: If we were to build a hundred mills, we would not permit any other than the "CASE ROLL" to enter them. They are the best roll on earth.

Yours truly,

W. C. MANSFIELD & CO.





VOL. XXII. No. 12.

BUFFALO, N. Y., MAY 19, 1890.

\$1.50 PER YEAR.

ACCORDING to the official figures of the Patent Office, the number of American patents issued in 1889 was the greatest ever issued in a single year. The number was 23,360, against 19,585 in 1888. With this general increase there was a decided falling-off in milling inventions, so far as both number and importance are concerned.

NOTWITHSTANDING the implied claim of the mismanagers of the Millers' National Association, that the mere existence of that organization has sufficed to prevent patent litigation, there is still a fair amount of litigation going on in lines that interest millers directly. Probably the courts and the laws of gravitation have never heard of the "National."

ACCORDING to statements made by Canadian journals, milling in the Dominion has perceptibly improved since the new flour duty has gone into effect. Abundant crops of wheat this year would make the Canadian millers happy and prosperous. We hope their crops will not start in at the 60,000,000-bushel notch on paper and dwindle to 20,000,000 bushels on the harvest-field. It would be a pleasant change to see them start in at modest figures and swell gradually to the close of the season.

AMERICAN millers can not easily understand the claim made for the Hagenmacher "Plansichter," that it obviates the clogging of the bolting-cloth, and at the same time causes stock to pass through the cloth without wearing the cloth out. Can it be that several of the supposed immutable laws of nature are set aside in the "Plansichter"? How is a textile to give passage to ground material, letting a portion through and holding back a portion, without clogging or wearing? There is a possibility that the claims made are too broad. It would be pleasant to contemplate eternal durability, combined with perfectly satisfactory work, in a bolting-cloth, but it is to be feared that, so long as friction and gravitation endure, just so long bolting-silk will wear out, clog, tear out, sag, and finally go to the rag-bag.

ADVANCING summer reveals more clearly the damage done to wheat in Illinois by frost and flood. A dispatch from Springfield, dated May 8, says: Reports received by the State Department of Agriculture from the more important wheat-growing counties of the State confirm the accuracy of the estimates made by the department on March 22, and show even a lower average condition than was made at that time. The area of winter-wheat destroyed by floods will reach 38 per cent. of the area seeded last fall, and the condition of that left standing for harvest does not promise more than 75 per cent. of an average yield per acre. Taking the State over, the condition of the wheat was nearly 55 per cent. short of an average on May 1. The area seeded to spring wheat this season is hardly up to that of 1889.

ENTHUSIASTIC correspondents will bear in mind that THE MILLING WORLD is not "opposed to manufacturers who own patents," as one of them wrongly puts it. What we have said concerning certain patent lawsuits, pending and prospective, does not lead to the conclusion evidently drawn by

some of our readers. We believe in protecting an inventor in all cases. We do not believe in allowing an inventor's property to be pirated for the good of others. What we have objected to is the attempt of certain men to claim more than they prove themselves entitled to. The public should be protected perfectly against such attempts. The inventor should not be robbed for the benefit of the public, and the public should not be robbed for the benefit of avaricious persons who present spurious claims. THE MILLING WORLD believes that the general good will be best served by exact and equal justice all around.

NUMEROUS letters sent into the winter-wheat States of the Mississippi Valley bring replies that more than confirm the bad reports of condition there. Nowhere do the correspondents report an outlook for abundant crops, and in nearly all cases the indications point to a crop far below the average. THE MILLING WORLD does not propose to "cover" the field. It makes no effort to do so, as its province does not include crop reporting, but we can not avoid being interested in crop conditions far enough to have a fair idea of what is in store for the millers, whose business depends upon the wheat crop. We have for years "kept the run" of conditions pretty accurately, and our readers know that on the last four crops our estimates were very close to the official figures. Seldom have the conditions at so early a period in the season pointed to so low a yield as now. Judging from reports received directly from farmers, as well as those received at second-hand, the winter-wheat crop of 1890 will surprise even the "bulls." The most favorable weather conditions from this date to harvest would hardly suffice to bring the winter yield up to the average. Nor is the spring-wheat situation sufficiently encouraging to warrant the hope of a large increase. All around the wheat horizon loom short crops and higher prices.

THE mismanagers of the Millers' National Association can not avoid attempting to bullyrag millers into joining that body. Their latest manifesto contains the inevitable clause about dreadful patent suits threatened, and the consequent(?) advisability of attending the Minneapolis convention in June. Of course, millers everywhere understand that it is the State and Federal courts that decide patent suits, and that the flour-barrel membership of the "National" is quite as powerless to turn aside litigation as King Kanute was to turn aside the impudent ocean from his throne when the tide came in. The "National" can not even scare off the sharks. The only way to get millers into the "National" is to make the "National" attractive to the millers. All other ways lead to failure, no matter who may attempt the herding under the "National" flag. No 50 small millers would be willing to sit in a convention where their 50 votes could be nullified by the adverse vote of a single "big" miller from Millerapolis. Yet that is the dose proposed in the new constitution for the small millers who are cabozled into joining the "National." However large may be the attendance at the Minneapolis convention in June, the "National" will thereafter mean just as little to the average miller as it means now, unless new ideas prevail.



# The DAWSON ROLL WORKS CO.

## FOUNDERS & MACHINISTS,

—MANUFACTURERS OF THE—

# Dawson Roller Mills

—AND FURNISHERS OF—

## CHILLED IRON ROLLS

WITH DAWSON PATENT CORRUGATION.

ALL STYLES OF FLOUR MILL ROLLS RE-GROUND AND  
RE-CORRUGATED WITH ANY FORM OF CORRUGATION.

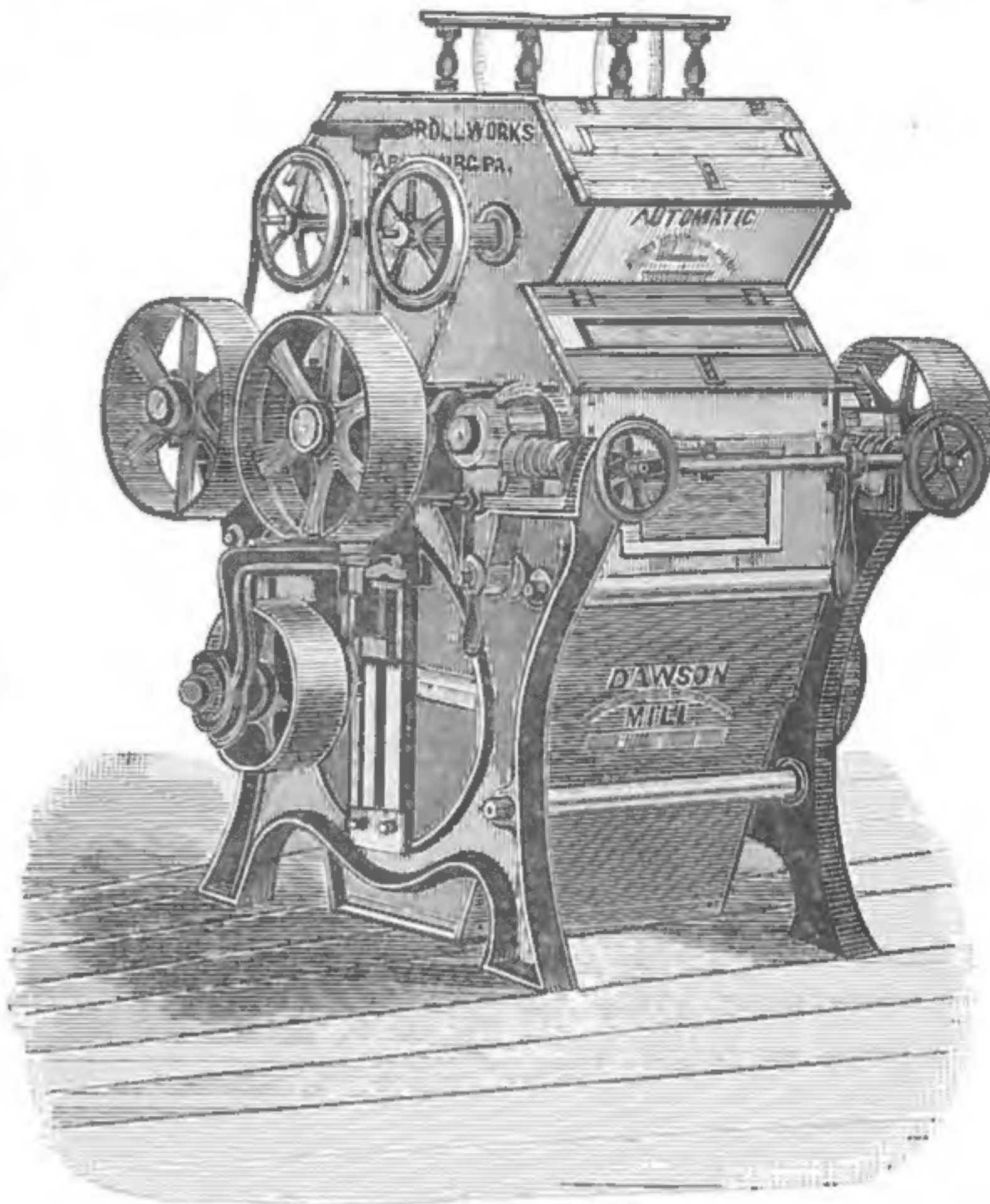
We have had large and extended experience in grinding and corrugating chilled rolls for milling, and have one of the largest and most improved plants in the country for this work, which enables us to meet the most exacting requirements of the trade promptly.

ORDERS AND CORRESPONDENCE SOLICITED.

# DAWSON ROLL WORKS CO.

South and Short Streets,

HARRISBURG, PA.



# The Cowles "Reliable" Sectional Wood Pulley



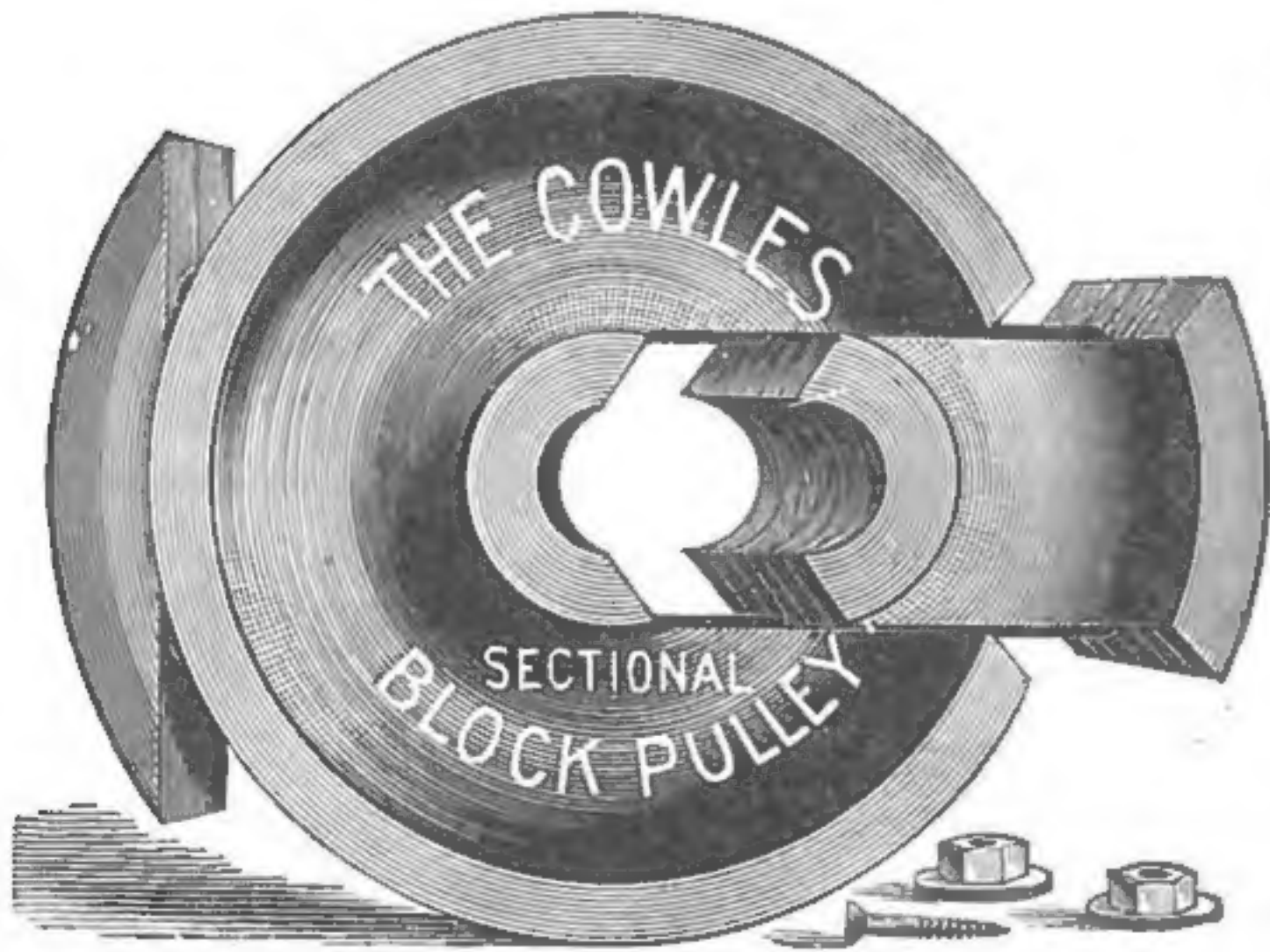
Web made of several layers glued together with grain crossing, and faced up on both sides. Iron flanges securely bolted to web. Rim put on after web has been trued up. Web and rim turned on inside and face, making perfect running pulley. Rim supported entire circumference. Positive self-gripping device for securing pulley to shafting, which is self-centering, and can not slip with wear.



A wooden rim pulley transmits from 30 to 50 per cent more power with same belt than an iron one.

Two-thirds lighter than iron, bearings will wear longer and the expense for lubricant will be less.

Having solid web, there is no air resistance. The "Reliable" can be placed on shaft or position changed in one-fourth the time required with any other pulley.



EDWARD GERMAIN, SOLE MANUFACTURER, SAGINAW, MICH., U.S.A.





PUBLISHED EVERY MONDAY. OFFICES: { Corner Pearl and Seneca Streets,  
Over Bank of Attica.  
McFAUL & NOLAN, - - - PROPRIETORS.  
THOMAS MC FAUL. JAMES NOLAN.

#### SUBSCRIPTION.

In the United States and Canada, postage prepaid, \$1.50 Per Year, in advance; remit by Postal Order, Registered Letter, or New York Exchange. Currency in un-registered letter at sender's risk.

To all Foreign Countries embraced in the General Postal Union, \$2.25 Per Year, in advance.

Subscribers can have the mailing address of their paper changed as often as they desire. Send both old and new addresses. Those who fail to receive their papers promptly will please notify at once.

#### ADVERTISING.

Rates for ordinary advertising made known on application.

Advertisements of Mills for Sale or to Rent; Partners, Help or Situation Wanted, or of a similar character One cent per word each insertion, or where four consecutive insertions are ordered at once, the charge will be Three cents per word. No advertisement taken for less than 25 cents. Cash must accompany all orders for advertisements of this class.

Orders for new advertisements should reach this office on Friday morning to insure immediate insertion. Changes for current advertisements should be sent so as to reach this office on Saturday morning.

#### EDITOR'S ANNOUNCEMENTS.

Correspondence is invited from millers and millwrights on any subject pertaining to any branch of milling or the grain and flour trade.

Correspondents must give their full name and address, not necessarily for publication, but as a guarantee of good faith.

This paper has no connection with a millfurnishing house and aims to represent the trade without prejudice, fear or favor.

Address all communications

**THE MILLING WORLD,**  
BUFFALO, N. Y.

Entered at the Post Office, at Buffalo, N. Y., as mail matter of second-class.

#### SITUATIONS WANTED.

Advertisements under this head, 25 cents each insertion for 25 words, and 1 cent for each additional word. Cash with order. Four consecutive insertions will be given for the price of three.

#### SITUATION WANTED.

Head miller with over 20 years experience want to make a change this spring. Address, A. MILLER, 67 Weaver Alley Buffalo, N. Y. 4c

#### SPECIAL ADVERTISEMENTS.

Advertisements of Mills for Sale or Rent, Partners Wanted, Machines for Sale or Exchange, etc., etc., cost 1 cent per word, for one insertion, or 3 cents per word for four insertions. No order taken for less than 25 cents for one insertion, or 50 cents for four insertions. Cash must accompany the order. When replies are ordered sent care of this office 10 cents must be added to pay postage.

#### FOR RENT.

Clinton Mills, at Black Rock, Buffa'o, for rent on reasonable terms, recently repaired and put in good order. Apply to CHAS. DANIELS, over 811 Main Street, Buffalo, N. Y. 6tf

#### FOR SALE.

One of the best paying 65-barrel roller mills in Nebraska. Nearly new, and in a locality producing a big surplus of excellent wheat. Address, A. C. PUTNAM, Chadren, Neb. 1114

#### PARTNER WANTED.

A man with capital to take an interest in a new 50-bbl. Roller, Flour and Feed mill. First class water-power. Everything entirely new and in first class running order. A practical miller preferred. For further particulars address BILLINGS, RED-HEAD & CO., Avoca, Steuben County N. Y. 1215

#### FOR SALE.

A five run stone mill, with five water-wheels. Building 40x54, with five floors. A never-failing water power on Flint River, about 200 feet from R. R. track. Property worth \$15,000. Will sell for less than half that amount. For particulars call on or address RODGERS BROS., Genesee Village, Genesee Co., Mich. 1013.

#### MILL MACHINERY FOR SALE.

One No. 0 Standard Combined Separator, Smutter and Brush Machine; new, best make.  
One 20-Inch Under-Runner Portable Mill, French Buhr Stone, capacity 10 to 12 bushels per hour; new, best make.  
One 14-Inch Vertical Feed Mill; best make, new, a bargain.  
One No. 6 Dustless Separator; new, a bargain.  
One No. 1 Full Rigged Combined Dustless Separator; new, a bargain.  
Four Corn Cob Crushers, right or left hand, driven from above or below, best make; capacity 40 to 60 bushels per hour.  
Three No. 1 Corn Shellers, capacity 200 to 300 bushels per hour; new.  
One No. 2 Purifier. New. Best make. A bargain.  
One 2 1/2-Inch Portable Mill.  
One 18-Inch Double Gear Portable Mill.  
For particulars address, FRANK SMITH, care of THE MILLING WORLD, Buffalo, N. Y. 5tf

## FOR SALE CHEAP.

One 36-In. Iron Frame Portable Mill, French Burr Stone, Used about 2 months.  
One 20 In. Vertical Mill, French Burr Stone, Used about 30 days.  
Three Pair 42-In. Old Stock Feed Stones.

FOR PARTICULARS ADDRESS.

**SAMUEL CAREY, 17 BROADWAY, NEW YORK.**

#### FOR SALE OR EXCHANGE

For water-power mill, two good farms 24 miles west of Richmond, Va., in Powhatan county, two miles from railroad, same distance from store, post office, mills, &c. Good buildings, plenty of water and fruit, &c. Address, H. L. AVERY, Hadley, Pa. 11

#### FOR SALE, EITHER ONE CHEAP.

A circular saw planing and feed mill, 90 acres of good land, two houses, one cost \$1200, best water power in county. 42 H. P. Turbine wheels. Three miles east of Ashtabula, O.

#### OR,

Short systm full roller mill, capacity 2 1/2 barrels of flour per hour, three grades. Buck wheat rig with Cranson shucker. Feed stone, &c. 40 H. P. Erie engine; locomotive boiler, all nearly new, on Main street, Ashtabula, O., two minutes walk from Post Office. Big retail trade. For particulars enquire of L. B. HOWARD, Ashtabula, Ohio. Box 488. 1013

READ carefully the announcement made in another column by Messrs. G. and C. Merriam and Company, of Springfield, Mass., the publishers of the celebrated "Webster's Unabridged Dictionary." Intending purchasers of dictionaries will do well to look at what they are buying when they see the announcement that \$2, or \$2.50, or \$3 will buy the "original" Webster's Dictionary. These cheap reprints are abominable in make-up and work, and no one should buy them in the belief that it is the current Webster he is buying. They are reproductions of the old edition of 1847, and any buyer, who is deceived into buying by the misrepresentations of the printers and venders of these antiquated works, will perform a public service by informing Messrs. Merriam of the deception. They will at once take steps to bring the deceivers to justice. Remember that the real current Webster's Unabridged Dictionary is not selling at \$2 or \$3. Do not be deceived.

It has been pet dogma with certain of the mismanagers of the Millers' National Association that the organization is "opposed" by the milling press. Nothing could be farther from the truth. The "National" has opposed the press and the small millers of the country, and the opposition has killed, not the press nor the millers, but the "National" itself. The respectable press opposed the idea of a vicious "organ" for the "National," and it won that battle promptly and decisively. Whenever the "National" has done a commendable thing, the press has commended. Whenever a disreputable move has been made by the "National," the press has condemned. Naturally enough, since the commendable things were so few and the disreputable things so many, the press has been forced to condemn oftener than commend. All the time the fault has been with the "National," not with the press. That is all there is in the pet dogma of the "National." When flour-barrels shall constitutionally supersede men in the "National," according to programme in June, the press will once more seem to "oppose" the "National," and once more the fault will lie with the "National," and not with the press.

THE breadstuff exports from the United States in April were encouraging. The total of wheat grain exported was 4,538,130 bushels, worth \$3,806,462, against 2,902,089 bushels, worth \$2,534,032 last year. For the ten months ended with April the wheat exports were 46,452,327 bushels, worth \$38,352,625, against 39,449,015 bushels, worth \$35,847,222 last year. The wheat flour exports in April were 1,156,533 barrels, worth \$5,578,250, against 646,365 barrels worth \$3,135,547 last year. For the ten months ending April 30 the flour exports were 10,042,779 barrels, worth \$47,642,704, against 7,542,837 barrels, worth \$36,632,773 last year. The corn exports in April were 13,788,457 bushels, worth \$5,540,958, against 8,379,462 bushels, worth \$3,750,291 last year, and for ten months 83,007,114 bushels, worth \$34,657,237, against 55,290,896 bushels, worth \$26,739,608 last year. The ten-months corn-meal exports were 296,446 barrels, against 260,160. The ten-month oats exports were 8,021,393 bushels, against 521,150 last year. The ten-month oatmeal exports were 22,260,408 pounds, against 8,084,526 pounds last year. The April total of breadstuff exports was \$15,534,146, against \$9,537,886 last year. The four-months total ending with April was \$57,510,173, against \$38,301,357 last year. The ten months total was \$126,160,523, against \$101,282,833 last year. The beef, hog and dairy product exports for 4 months ending April 30 was \$42,148,794, against \$36,222,803 last year.



**THE MAY CROP REPORT.**

Announcement from Washington states that the official report of the condition of winter grain May 1st makes a reduction of one point in wheat, the average being 80. The rye average is maintained, being 93.5, and barley 84.6. The areas in which the roots were not too severely frozen have improved during the past month. In others the injury is shown to be greater than appearances indicated. Some correspondents state that it is yet too early to know the amount of vitality and the ultimate degree of development of the plant. The drained fields suffered least injury. Heavy clays, undrained and level areas holding moisture, were in many places almost totally destroyed, hence the heaviest decline in condition appears in Indiana and Illinois. A part of the Ohio breadth improved, while a large part declined, causing a fall of 5 points for the State. A loss in condition is reported in Texas from the ravages of an aphid, or plant-louse. There is a decline throughout the southern belt from injury by the March freeze and depredations of insects. There is a partial recovery from the very low condition of April on the Pacific coast, and an improvement in Kansas, Michigan, Kentucky, Tennessee and New York. The averages of condition for the States of principal production are as follows: New York 91; Pennsylvania 96; Ohio 82; Michigan 73; Indiana 63; Illinois 64; Missouri 82; Kansas 92; California 82, and Oregon 95.

The Southern States producing wheat are Maryland 98; Virginia 95; North Carolina 80; Georgia 65; Texas 67, and Tennessee 82. The condition of mowing land averages 92.9, and that of pastures 93, indicating a good prospect for a medium production. The reported progress of spring plowing and planting indicates an average state of forwardness of farm work. Though there are local inequalities in the record, it is relatively located in the Ohio Valley, in southwest Missouri and on the Pacific coast. It is earlier than usual in the Northwest and on the Atlantic coast south of Delaware. It is an average in the Middle States and in New England. An investigation of all the wages of farm labor has been made. The monthly rate of wages has not declined, compared with the last previous report, that of May, 1888. The average for the country is unchanged, though slight local fluctuations are reported. A scarcely appreciable increase appears in the Eastern and Middle States, and there is some increase in Virginia. There is a slight reduction of the rates of the Pacific coast region, which are still relatively high throughout the central areas, north and south. The averages are practically the same as two years ago. It is evident that the depression in prices of corn and oats and their products has not affected the wages of agricultural labor.

**THE TRI-STATE MILLERS' CONVENTION.**

Michigan, Ohio and Indiana millers invaded Fort Wayne, Indiana, on Tuesday, May 13, and they held the town for two days. Their assembling was in response to a call for the Tri-State Convention of millers, and the State and Tri-State association meetings were well attended. The afternoon was given up to the meetings of the State associations. The Indiana State Millers' Association convened at 3 o'clock on Tuesday afternoon, in the Princess Rink, with S. B. Boyer, of Logansport, in the chair, and editor D. H. Ranck, of "The Millstone," of Indianapolis, acting as secretary. The reports of the officers were heard and adopted. The treasurer reported a deficiency of \$61.55. The association elected F. E. C. Hawks, of Goshen, president, and E. E. Perry, of Indianapolis, secretary. The office of vice-president was given to J. L. Knauss, of Evansville. Jesse Arnold, of North Manchester, was elected a member of the board of directors. Messrs Blish, of Seymour, Knauss, of Evansville, and Monning, of Fort Wayne, were chosen as a committee on resolutions to co-operate with members of the other State committees. These committees were appointed: On resolutions—J. B. Monning, Fort Wayne; J. L. Knauss, Evansville; Jesse Arnold, North Manchester. On permanent organization—J. E. Laughry, Monticello; W. T. Iglehart, Evansville; M. S. Blish, Seymour. On district organization—F. E. C.

Hawks, Goshen; J. L. Knauss, Evansville; C. G. Carpenter.

The Michigan State Association met, at the same hour, in the Wayne Hotel. The meeting was informal. The committee on organization was composed of Messrs. H. F. Colby, W. A. Coombs and W. B. Knickerbocker. The following officers were elected: President, W. B. Knickerbocker, Albion; vice-president, C. J. DeRoo, Holland; secretary and treasurer, M. A. Reynolds, Stanton. Executive committee: W. B. Knickerbocker, Albion; C. J. DeRoo, Holland; W. A. Coombs, Coldwater; E. E. Cappell, Belding; W. N. Rowe, Grand Rapids.

The Ohio State Association met, at the same hour, in the Wayne Hotel. President F. Schumacher, the "Oatmeal King," of Akron, stepped down to give place to Mr. Homer Baldwin, of Youngstown, who was elected president. John F. Blake, of Canton, was elected vice-president, and W. H. Davis, of Shelby, was re-elected secretary. The minutes of the last meeting, held at Akron, were read. The transportation question was discussed, Mr. Loring, of Minneapolis, Minn., taking part. It was announced that the Wisconsin Central road and the Chicago, Milwaukee & St. Paul each offered the millers tickets at one fare for the round trip to the Millers' National Association convention in Minneapolis, June 16, 17, 18 and 19. Messrs. Brown, of Fostoria, and Colton, of Bellefontaine, and Secretary Davis were appointed a committee to act with members from the other States on permanent organization. Discussion of the condition of the wheat crop revealed varying views. Some of the members reported that the indications promise a fair average crop, and others asserted that in their sections the outlook is bad. The most cheerful view of the reports gives any thing but encouragement.

The joint committee on resolutions held a secret meeting in the Wayne Hotel on Tuesday evening. The town was full of visitors, and at the various hotels were crowds of millers, machinery manufacturers' agents and the inevitable advertisers of various sorts. The committee of Fort Wayne men did all that lay in their power to entertain the visitors. The hotels were comfortably filled, and the "points" of Fort Wayne were not allowed to go unnoticed by the visitors.

**THE WEDNESDAY SESSION.**

The convention was called to order on Wednesday by temporary chairman H. F. Colby, of the Michigan association. Mayor Harding, of Fort Wayne, delivered a pleasant address of welcome to the visitors. The Tri-State Millers' Association elected the following officers to serve one year: President—John F. Blake, of Canton, Ohio. Secretary—Editor D. H. Ranck, of the "Millstone," of Indianapolis. Vice-Presidents—W. B. Knickerbocker, Michigan; Homer Baldwin, Ohio; F. E. C. Hawks, Indiana.

The forenoon session was given up to discussions. F. Schumacher, of Akron, O., strongly advocated the formation and maintenance of millers' associations, both local and state. W. C. Coombs, of Coldwater, Mich., gave a detailed account of the good results following from organization in his state. Messrs. M. A. Reynolds, of Stanton, Mich., Homer Baldwin, of Youngstown, Ohio, and M. S. Blish, of Seymour, Ind., spoke strongly in favor of national organization for the benefit of millers. Ex-secretary S. H. Seamans, of Milwaukee, Wis., sent a letter to the convention on the subject of the Millers' National Association, and the present secretary, Frank Barry, presented a paper on the jute duty question. "The Miller as a Wheat Buyer" was the subject of an interesting paper by F. E. C. Hawks, of Goshen, Ind. President John F. Blake, of Canton, Ohio; F. Schumacher, of Akron, Ohio; W. B. Knickerbocker, of Albion, Mich., and W. T. Iglehart, of Evansville, Ind., were appointed a committee to send the following resolution to Congressman H. J. C. Burrows.

*Whereas*, There is for consideration by the national Congress an act for placing a specific tariff duty of 1½ cents per pound on jute burlap and 2-10 cent per pound upon bags; and *Whereas*, The export trade in wheat flour for the ten months ended May 1, was slightly over 10,000,000 barrels, and the export of wheat for the same period was 42,000,000 bushels, or together 92,000,000 bushels; and,



*Whereas*, It would require 14,000,000 of 140-pound sacks to carry this flour alone, and the specific tax of 2.2 cents per pound would cost the millers of the United States the sum of \$3,040,000 in ten months for the benefit of three petty manufacturers of jute-bagging, be it *Resolved*, That the millers of Ohio, Indiana and Michigan denounce with words of no uncertain meaning the injustice of this restriction on their business, and that we label this act "a conspiracy" of three jute manufacturers to rob the farmers and millers of America, and be it further *Resolved*, That this convention immediately urge upon Congress the impolicy and unfairness of this act, and that copies of this resolution be sent to the chairman of the Ways and Means Committee, to the secretary of the National Millers' Association and to the Congressmen of the three States with a request for prompt action.

Discussing the question of "The Best Milling Wheat," J. M. Servoss, of Milford, Ind., said the best milling wheat is what is called hybrid. The Pool wheat they shipped off to Toledo as fast as they could. Up in Michigan they raise the Clawson wheat. In Indiana they do not raise the Fultz wheat at all. A stumbling block in the way of the miller is the elevator man, who advises the farmers to raise that kind of wheat that brings most bushels to the acre and pays best, no matter how the millers like it or dislike it. The Pool wheat makes a yellow flour, and a soft fluffy stock followed it all through the mill. Mr. Barnett, of Springfield, Ohio, spoke on the same subject. He said in his section the Mediterranean wheat and Lancaster make the best flour. He had ground a sample of Theiss wheat, which he received from Hungary, and had raised some of it, and it is a good wheat. The speaker has lived at Springfield for forty-five years and knows that a smooth wheat would not last many years there. The wheat that lasted best was a hard round berry.

On "Methods of Selling Flour," H. F. Colby, of Dowagiac, Mich., said he was opposed to selling flour through brokers. "You can't make a broker honest," said the speaker, "I don't know whether this applies to the millers or not. We are making money, not a great deal, but making enough to satisfy us, and we don't want any broker to rob us. We don't want to be under the guardianship of anybody; we want to manage our own business. I think the time will come when we will have men employed to sell flour for us to get all they can for it, and not have any more brokers."

Preparations had been made to give the visitors a carriage ride through the town during the day, but, owing to the pressure of business before the convention and to the desire of the members to accomplish the work laid out, it was decided to decline the compliment tendered by the citizens of Fort Wayne. The ride was taken in the evening.

The Butterworth bill to prevent speculation in produce was discussed. F. E. C. Hawks, of Goshen, Ind., opposed the bill. He feared that rash legislation would do harm. The millers ought to wait and see what effect the suppression of the Chicago bucket-shop nuisance would have. Mr. Snodgrass, formerly a member of the Chicago Board of Trade, and who has a brother now a member, talked on option trading. He argued that all legitimate purchasing of wheat was optional trading. No man who ever bought a bushel of wheat on the Chicago Board of Trade failed to get that bushel of wheat, if he held the margin until the time for delivery of it. The discussion from this point was exciting. Mr. Brown, of Fostoria, Ohio, representing the Isaac Harter Company, made a speech giving the scheme of dealing by his company, and that scheme was branded by Secretary Davis, of the Ohio Association, as gambling. "You make the money out of the gambling institutions," said Mr. Davis, "and the rest of us have to do without." During the discussion, which waxed hotter for about half an hour, "Old Hutch," of Chicago, came in for a round share of abuse. The contest over, the following resolution was passed by the convention:

*Whereas*, A bill has been introduced in Congress by the Hon. Benjamin Butterworth, of Ohio, to prevent what is known as option dealing in agricultural products, and *Whereas*, The various commercial exchanges of the country have allowed this feature of trade to assume complete mastery of their transactions, wiping out of all calculations each and every legitimate influence, thereby menacing the business of every dealer in these products, whether manufact-

urer or producer, *Resolved*, That this convention is heartily in favor of the immediate passage of the Butterworth bill.

The following resolution was also passed:

*Whereas*, The events of the past winter in connection with the sittings of the Pan-American Congress at Washington City have shown in a clear light to the people of the United States the immensity of the avenues of trade which we might hold against all comers with our sister republics of the southern continent; and *Whereas*, The insignificance of our present trade with these countries seems to arise from legislative indifference, if not restriction, on the part of our government; *Resolved*, That this convention is heartily in favor of treaties with these countries, reciprocal or otherwise, which will open these great markets for the sale of the products of our mills and farms.

The following resolution was also adopted:

*Whereas*, The Postmaster-General has drafted an act to establish a limited postal-telegraph system between all carrier delivery post-offices, and *Whereas*, The first telegraph line was constructed between Washington and Baltimore with an appropriation by Congress and placed in charge of the Postmaster-General, but was afterward allowed to pass into the hands of corporations which have used it as a means to tax the public for this important system of conveying intelligence, and *Whereas*, The United States is the only important country on the globe that does not operate the telegraph as a part of the post-office system; *Resolved*, That this convention favors the increased use of the telegraph in connection with our postal system, and heartily commends the proposition of the Postmaster-General to the favorable consideration of Congress.

Mr. Jenks, of Sand Beach, Mich., talked on "Legislation and Politics." He believes in the millers standing by those who stand by them politically. He was pronounced "a success as a kicker." Resolutions of thanks were tendered the merchants and citizens of Fort Wayne for courtesies extended. The convention adjourned in time for a carriage drive in the evening before the banquet. The visitors enjoyed the drive through the principal streets.

#### THE BANQUET.

The banquet prepared by the Business Men's Exchange of Fort Wayne was held at Standard Hall on Wednesday evening. It was a very creditable and enjoyable affair. The guests numbered several hundred, including prominent citizens of Fort Wayne. Colonel George McKinnie was caterer. The menu was as follows:

Raw Oysters.  
Sardines in Oil.  
Fillet of Beef, with Jelly.  
Tongue.  
Lobster Salad, Mayonnaise Dressing.  
Potato Salad.  
Ice Cream. Cakes. Cheese.  
Coffee and Cigars.

The visitors showed themselves capable of long-system reduction at the table, and the chins that had been waving most of the day in impassioned oratory showed that the unusual oratorical exercises had not stiffened their joints. They were able to wave over choice dishes until the bounteous repast was demolished. The programme of toasts prepared was as follows:

Our Visitors.....R. C. Bell  
The Miller as a Dust Collector.....Mr. H. F. Colby  
The Miller in Politics.....Hon. John F. Blake  
Municipal Government.....Mr. Henry Colerick  
Modern Methods.....Mr. Homer Baldwin  
The Mill by a Dam Site.....Mr. W. F. Iglehart  
Fort Wayne.....Mr. H. C. Hanna  
A General Grist.....Volunteers

The toast-master was Mr. S. M. Foster, who was introduced to the feasters by President J. B. Monning of the Business Men's Exchange. Mr. Foster presided gracefully and in a pleasant speech introduced Hon. R. C. Bell, who responded to the sentiment, "Our Visitors." Mr. Bell in his usual felicitous style spoke of the body of gentlemen who had been in session and of the pleasure it gave the city to entertain them. His remarks were frequently interrupted with great applause. "The Miller as a Dust Collector" was the theme assigned to Mr. H. F. Colby, of Dowagiac, Michigan, and his remarks were filled with timely suggestions to the millers. "The Miller in Politics" was answered by Hon. J. F. Blake, Mayor of Canton, Ohio. The speaker took occasion to inject a considerable amount of



politics into his address. Some of his points were timely and well put, while others were rather far-fetched and admit of considerable discussion. Mr. Henry Colerick was down for a response to "Municipal Government," but being unavoidably absent, the vacancy was filled by a song, "Let All Obey," by Mr. Win S. Bash. "The Mill by a Dam Site" elicited a humorous response from J. M. Servoss, Midland, Ind., and "Modern Methods" was skillfully handled by W. C. Coombs, of Coldwater, Mich., Mr. Baldwin, to whom was assigned the toast, being absent. Calls then went up for Mr. Bash, and he responded with a song, "Sally Horner." Mr. Harry C. Hanna was called upon to respond to the sentiment, "Fort Wayne." The regular programme having been completed, M. M. Slattery, the electrician, was called out, and made a few happy remarks. It was a late hour before the assemblage dispersed, but all departed in the most pleasant mood, and the association now closed will long be remembered as a successful gathering.

#### NOTES.

The number of millers in attendance was over 125.

The milling press was not generally represented. Editor Ranck, of the Indianapolis "Millstone," and Mr. C. S. Clark, of the Chicago "American Miller," were among the representatives of the milling press.

Some of the visitors were astonished at the amount of politics injected here and there into the proceedings.

The exporters' element really toned the meeting in all essential points, although the "practical flour-maker and the small miller had a fair show," as one visitor put it.

The Fort Wayne Business Men's Exchange covered itself with glory, and Fort Wayne has received a valuable advertisement as a thriving town full of hospitable and enterprising people.

"Wonder if Minneapolis will draw as large a crowd in June at the National convention?" sighed one speculative member.

Much of the discussion was perfectly pointless, as is usual in meetings that permit outside matters to be dragged in by the nape of the neck and slung around promiscuously, but the gush and flow were not equal in pointlessness to the famous "National" flow in Buffalo in 1888.

Some old dusties, not directly interested in jute bags, burlaps and exports, pined for some "practical" work to demonstrate mooted points in making flour.

The effort to boom the "National" was visible on every side, but it is an open question whether the Tri-State convention will hurt or help the National convention in June.

The contrast between the Tri-State convention and the National fiasco at Milwaukee last year was painful to certain interested visitors.

#### MILLING PATENTS.

Among the patents granted May 13, 1890, are the following:

Hiram J. Livergood, Bradford, Ontario, Canada, No. 427, 585, a wheat-scouring machine, comprising a scouring-case, made in sections, each section having on its concave inner surface rows of corrugations which run longitudinally of the sections and in zigzag lines transversely of the sections, and each section being provided with longitudinal openings for the escape of the refuse and with transverse strengthening-bands, the said scouring-case being provided with an outlet-opening.

Jesse Warrington, Indianapolis, Ind., No. 427, 644, hominy-mill, containing the combination of the cylinder, the feeding-gate, the discharging-gate, an intermittently-moving shaft, cams on said shaft, pivoted weighted arms arranged to be operated by said cams, connections between said arms and said gates, and mechanism whereby the gates are operated in a uniform time regardless of the time occupied in treating the charge of grain, and the combination of the main cylinder, a system of gearing, the last wheel of said gearing having projections thereon and mounted loosely on a shaft, said shaft, a two-part wheel having internal friction-rolls, one part having a projection which is operated upon by a projection on said last gear-wheel, and another part having a projection which, as the wheel revolves, will come into con-

tact with and operate a vibrating-bar secured to a hub on the shaft and force said bar into engagement with another projection on said gear-wheel, and fixed cam-shaped projections by which said bar can be thrown out of said engagement, and said bar and hub, whereby said gear-wheel being in continuous revolution the said shaft to which said vibrating bar is attached may be given an intermittent revolution.

John Humphrey, Akron, O., No. 428, 049, a turbine water-wheel, assigned to the Humphrey Turbine Co., same place.

#### ECONOMY IN MILLING.

Discussing the important subject of economy in milling, our esteemed cotemporary, the St. Louis "Miller" says: In these days of close margins there is no such thing as success in the business without it; and as there are so many opportunities to practice economy that counts big in the business, the miller, if he wishes to be successful, should make economy in every particular, about the mill, a close study; and when once he does, the number of places where good management will produce thrift will surprise him. In the days of stone-milling, in a mill which employed ten run of millstones, it was the practice to take up two run a day for dressing. It was noticed that the material absolutely wasted through pasting and scouring, each time a hoop was cleaned, amounted to about 35 pounds, a part of which was flour material and a part feed, but all utterly worthless for any purpose.

After noticing this waste the miller began to figure on it thus: We run 300 days in a year, each day wasting 70 pounds of feed material worth 1 cent per pound. Which, figured out 70 cents per day for 300 days, aggregates a loss of \$225 per annum. And when it is considered that a portion of the material so destroyed is flour, it is reasonable to estimate the loss so entailed at a dollar a day or \$300 a year. After this estimate of loss it was decided to put pipes and settling-spouts having "drags" from the hoops of each stone, and to these was attached a large suction-fan which discharged into a settling-room. In this way absolute waste was overcome, for even the bran thrown around the stone for "hoop-lining" did not sour, hence was not wasted. Salvage of waste by destruction of material around the hoops was not the only saving, because by the means there was no waste from stuff being blown out at the top of hoops and turned to sweepings on the husk-frame floor. Nor was salvage of waste the only advantage gained by the apparatus just mentioned, for every elevator and spout connected with the grinding part of the mill was cured of the bad habit of blowing. Moreover, convenience, comfort and greater accuracy of grinding were assured. When the miller opened the hand-holes to feel the grinding, he was not met with a puff of hot air and steam that would blow his hat off, fill his face with paste and his eyes with dust, and cause a chain of of sulphurous by-words to bubble through his clenched teeth. For instead of a puff outward there was a draft of cool air passing in.

The points of economy referred to and the advantages in mill-tending accomplished by drawing off the hot air and steam or vapor from the grinding appliances have lost none of their features by the supplanting of the millstone by the roller-mill. The steam and heat generated by the grinding operations of the roller-mill housing by an attached elevator, ready to rush out into the mill-room whenever a "shutter" is open, are more disastrous to roller-milling, in their effect, than the same thing was to stone-milling. For in roller-milling grinding operations have become multiplied; hence there is more of them requiring attention, and whatever in milling requires a great amount of attention is liable to be neglected. Aside from the disagreeable part and the tendency to cause the miller to neglect his duties, failure to provide against the bad effects of generated steam and heat in roller-mill housings is as dead against milling economy as it ever was. For while the housings of roller-mills are not cleaned, brushed and scraped at regular internals, as were the hoops, the waste from pasting goes constantly on, while the soured material does more damage than if it were thrown away, by being powdered into flour by succeeding grinders, while



choking feed distributors in every operation to which it goes. And along with all this is to be considered the tendency of steam and hot air to interrupt desirable running conditions of all sorts of feeding-devices and the disfigurement of all sorts of elevator feeder and roller-mill housing by warping.

Economy of bolting-cloth is another point in favor of drawing the steam and hot air off from the housings in grinding operations. And the economy is not to be estimated from a standpoint of life of the cloth alone, but also from a capacity standpoint, for there is nothing that will close and destroy the utility of the meshes of a bolting-cloth more quickly than the adhesion of dirty dust while the cloth is damp and hot from grinding vapor. The drawing of steam and hot air away from grinding operations can be done more easily now than in former times. Once the current of air so drawn must be strained through flannel cloth, but now the setting may be done by the centrifugal principle of dust-collecting. And as, in this way, there are no cloths to renew at regular intervals, when preparations are properly made they are good for ever. Much work has been done in this sort of milling economy, but not nearly enough millers give it proper attention. Oftentimes we find mills in which it is a distressing task to feel the grinding of the rolls, because it is not possible to do so without getting covered all over with hot sticky dust; while all around is evidence of enough waste to pay soon for the proper arrangements for overcoming all difficulties. Once, and quite recently too, the men in a mill had heard the miller complaining sorely about "not being able to keep his middling-purifiers in order." "They are all right," he said, "when first clothed, but they soon get badly off." On examination they were found to be very dirty. Looking for the cause, it was found that the purifiers stood immediately over the roller-mills, with a large opening in the floor near by. Up through this opening the steam and dusty hot air arose and were at once taken up by the air currents of the purifier; hence the dirt and gum on the purifier cloths which destroyed their proper conditions. The opening was stopped, the cloths were renewed, and the trouble was ended.

#### OREGON FLOUR GOING TO ASIA.

A new steamer line is about to be established between Portland and Japan, and the latest reports concerning it indicate that the first steamer will start from Japan about May 15, arriving in Portland about June 1. The Portland "Oregonian" says: "The prospects for this line of steamers securing business from this port are very good, and it is not at all probable that they will seek any other terminus. The flour trade with China and Japan is rapidly increasing. The Portland Flouring Mills Company is now shipping by every steamer from 8,000 to 10,000 barrels, which is twice the amount shipped last year, and is more than any one concern in California is shipping, probably more than any other two companies in that State. The reason for this is that Oregon can furnish a better article of flour and at a less

price than California, and will therefore continue to secure more and more of the China and Japan trade. The shipments of flour so far have been principally to Yokohama, Hong Kong and Shanghai, but a part of the last shipment made by the Portland Flouring Mills Company goes to Singapore, away down by the south end of the Malay peninsula, and only a little over one degree north of the equator. This shows that the trade is extending, and it is not unreasonable to suppose that in ten years China and Japan will take the whole output of flour of the Pacific coast. Heretofore this coast has been at a disadvantage compared with the east, in consequence of having to ship its wheat and flour around Cape Horn and over to England to find a market. When the 'teeming millions' of Asia get in the way of using flour, we shall have a market for all our flour, and one in which the east can not compete on an equality."

According to reports from the Northwest, something new in wheat culture is being tried. Major Fleming, a North Dakota grain-grower, has finished sowing 500 acres of wheat in drills 18 inches apart for the purpose of cultivation. He has undertaken this experiment on a scale that it may be important enough to attract due attention. One-half section of the cultivated wheat has been put upon stubble ground which was not plowed this spring, but simply burned over and then cultivated with the drills as the grain was put in. If the experiment succeeds upon the land, it will show that one plowing can be dispensed with. All grain thus raised heretofore has, so far as information is secured, been cultivated by hand hoes. The major has secured an instrument which cultivates a strip 12 feet wide at a time, and he is perfectly satisfied with the work of the new machine. The grain can be cultivated with as great rapidity as it was seeded, and costs not to exceed 10 cents per acre for each cultivation. He expects to run this machine as often as needed over the fields until about June 20.

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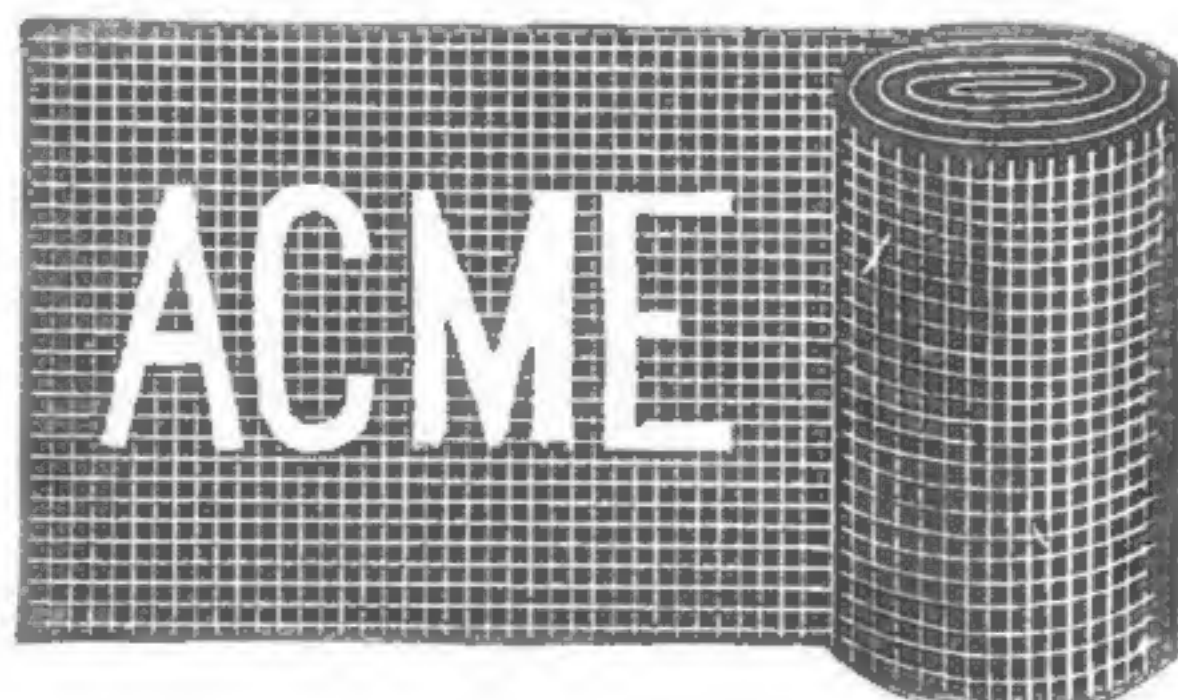
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# Practical Notes

**ARTIFICIAL WHETSTONES**—A French technical paper gives the following method of making artificial whetstones: Gelatine of good quality is dissolved in its own weight of water, the operation being conducted in a dark room. To the solution is added 1½ per cent. of bichromate of potash which has previously been dissolved in a little water. A quantity of very fine emery, equal to nine times the weight of the gelatine, is intimately mixed with the gelatine solution. Pulverized flint may be substituted for emery. The mass is moulded into any desired shape and is then consolidated by heavy pressure. It is dried by exposure to strong sunlight for several hours.

## GENERAL NOTES.

THE office boy owed one of the clerks three cents. The clerk owed the cashier two cents. The cashier owed the boy two cents. One day, the boy, having a cent in his pocket, was disposed to diminish his outstanding indebtedness, and paid the clerk to whom he was indebted three cents, one cent on account. The clerk, animated by so laudable an example, paid one cent to the cashier, to whom he was indebted one cent. The cashier, who owed the boy two cents, paid him one. And now, the boy having again his cent in hand, paid another third of his debt to the clerk. The clerk, with the said really "current" cent, squared with the cashier. The cashier instantly paid the boy in full. And now the boy, with the cent again in his hand, paid off the third and last installment of his debt of three cents.

### POINTS IN MILLING.

ACCORDING to a statement from Jackson, Michigan, the new idea in milling promised by George T. Smith is embodied in a plan that will greatly shorten the distance through which wheat must pass while in process of flouring. The Smith idea means a thoroughly convenient mill to operate, in which space, power, labor and every other item of cost in making flour shall be economized to the utmost, while the quality of the product shall be kept high. He proposes to make war on all unnecessary handling and elevating, items which swell the cost of production very largely.

JACKSON capitalists are aiding Mr. Smith to put his idea into actual practice in a model mill, which is now building in Jackson and will be ready for operation in several weeks. In the arrangement of this mill the rolls are to be placed in a solid upright frame, one above another, and the operator will pass up and down in a passenger elevator to inspect the bolts and rolls. The wheat grain passes through the first roll into a conveyor beneath, whence it passes to a spot connected with the head of the reel below. After bolting, the stock that requires further grinding passes by another conveyor to the next pair of rolls below. Thence it passes as before to a reel below, and this operation is repeated until the flouring is accomplished. Chokes are rendered impossible by openings in the top of the conveyors. The mill at Jackson will be five stories high.

As every miller will at once see, this plan of milling implies important changes in important particulars. It means a compactly arranged plant, devoid of useless spouts, elevators, conveyors, belts, shafts and other costly parts. More important still, it means an important reduction of the travel of the stock, with its inevitable abrasion of the broken berries. Actual work will be needed to demonstrate the effect of the reduced travel of the stock on the heat developed while it is being floured. Millers will await with keen interest the

outcome of the trial of the Smith model mill. If it reduces the cost of a plant considerably, while keeping up to the highest notch the quality of the flour made, it will mark an era in mill-building and flour-making. For several years millers have complained of the excessive cost of flouring-mills, and they will follow the inventor or builder who promises them a direct and sure path out of the wilderness of over-large cost of plant.

WHENCE come all the new, or rather, all the strange, moths we hear so much about nowadays in flouring-mills? Are they patented? Is there a Conglomerated Mill Moth Company lying back of all these highly-named pests, waiting until all the mills of the country are overstocked with them to spring claims for royalties on the owners of the moth-infested mills?

DOUBTLESS the gambling grain speculators may influence milling for the worse by selling a 490,000,000-bushel crop of wheat over 100 times in a year, but I am inclined to think that most of the trouble with milling is in milling, not outside of it. It makes little difference to the slouchy, lazy, negligent, blockheaded flour-maker whether the gamblers sell a million or quadrillion bushels of "paper" wheat, for such a miller is sure to fall behind and out in any case. It is easy, and it is misleading often, to charge every evil in milling to grain-gambling.

THE mill-furnisher's agent shows no signs of abatement. He is as numerous as ever, as ubiquitous as ever, and, in the eyes of the miller, as iniquitous as ever. He is paying more attention, too, to the "small miller," whose existence he has generally ignored heretofore. He finds that the "small miller" is playing a more and more important part each year in the milling business, and the lofty agents of the toplofty houses are including the small fry in their circuits of "calls." It is well. The big houses that have lost the big business patronage to better rivals may find profit in a smaller patronage, which they have so long ignored. The "small" miller now has an exceedingly large field of suitors for his favors, and he can drive the bargains at will. Some of the old longest system houses are in the field with the shortest of short-system equipments. This is another instance proving that "the world do move."

AUTOMATIC sprinklers that do not automatically sprinkle when fires break out appear to be the rule. I notice that the insurance men begin to hedge on "automatically sprinkled risks," because several recent fires were in establishments supposed to be "protected" by automatic sprinklers. These sprinklers have, it is claimed, been the means of reducing the cost of fire insurance 50 to 60 per cent. In view of the complete destruction of automatically sprinkled establishments, including some flour-mills, this reduction seems to be over-large. Automatic sprinklers are, I think, a good deal like so-called "automatic" milling-machines, they need watching and occasional assistance to insure perfect work. I have a deep-seated distrust of automatic machinery in general, and of automatic sprinklers and flouring-machines in particular.

### A NEW METHOD OF TREATING DISEASE.

#### HOSPITAL REMEDIES.

What are they? There is a new departure in the treatment of disease. It consists in the collection of the specifics used by noted specialists of Europe and America, and bringing them within the reach of all. For instance the treatment pursued by special physicians who treat indigestion, stomach and liver troubles only, was obtained and prepared. The treatment of other physicians, celebrated for curing catarrh was procured, and so on till these incomparable cures now include disease of the lungs, kidneys, female weakness, rheumatism and nervous debility.

This new method of "one remedy for one disease" must appeal to the common sense of all sufferers, many of whom have experienced the ill effects, and thoroughly realize the absurdity of the claims of Patent Medicines which are guaranteed to cure every ill out of a single bottle, and the use of which, as statistics prove, has ruined more stomachs than alcohol. A circular describing these new remedies is sent free on receipt of stamp to pay postage by Hospital Remedy Company, Toronto, Canada, sole proprietors.



**PREJUDICE** Investigate the merits of the Reliance Safety Water Columns. It pays to keep posted. Many of the largest corporations have found it profitable to discard the old appliances and adopt these safeguards. There is always economy in safety. Send for illustrated price-list.

Reliance Gauge Co., 831 Sheriff St., Cleveland, Ohio.

## THE "HARLOW" Positive Feed Lubricators.

For Marine and Stationary Engines, Steam Pumps, Electrical and other Machinery.

MAXIMUM ECONOMY IN OIL.  
MARKED ECONOMY IN FUEL.

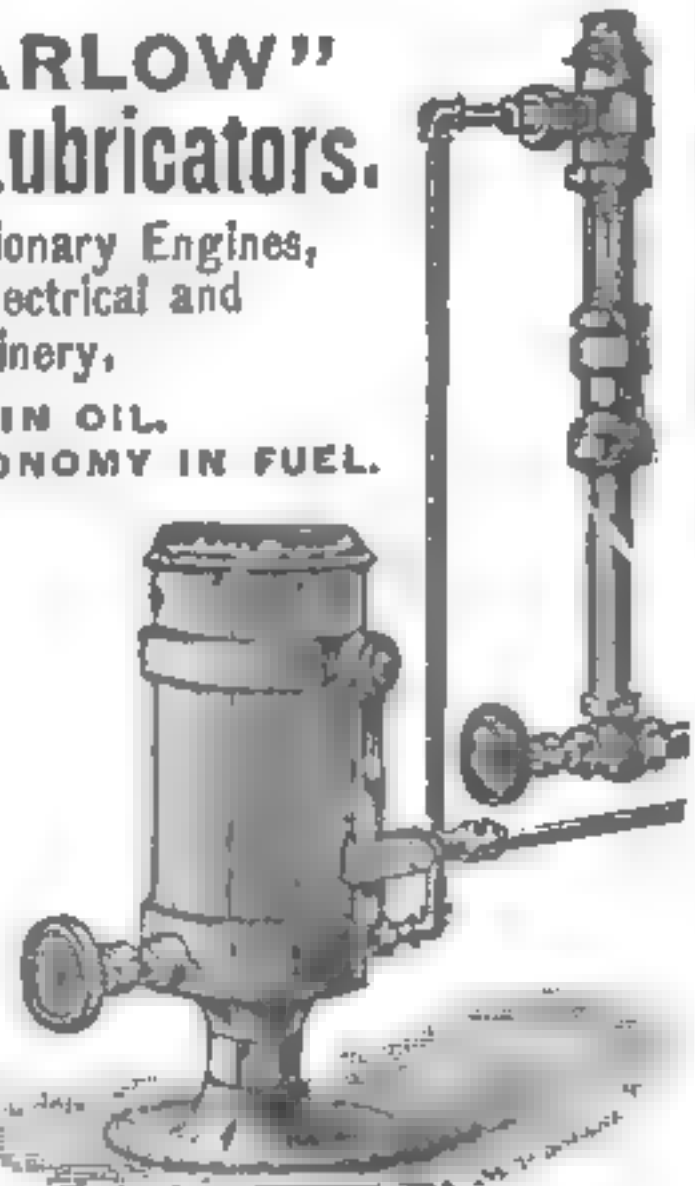
Not dependent upon or operated by Steam Pressure, Condensation or Gravity.

Not affected by changes of temperature.

BEING operated by some moving portion of the engine or machine to be lubricated, the "Harlow Lubricator" starts and stops with the engine or machine being lubricated, without requiring the slightest attention from the engineer or operator, always delivering the oil in any amount from a drop to a constant stream.

The cup can be filled at any moment while the engine or machine being lubricated is in operation, without causing any leakage either of oil or steam.

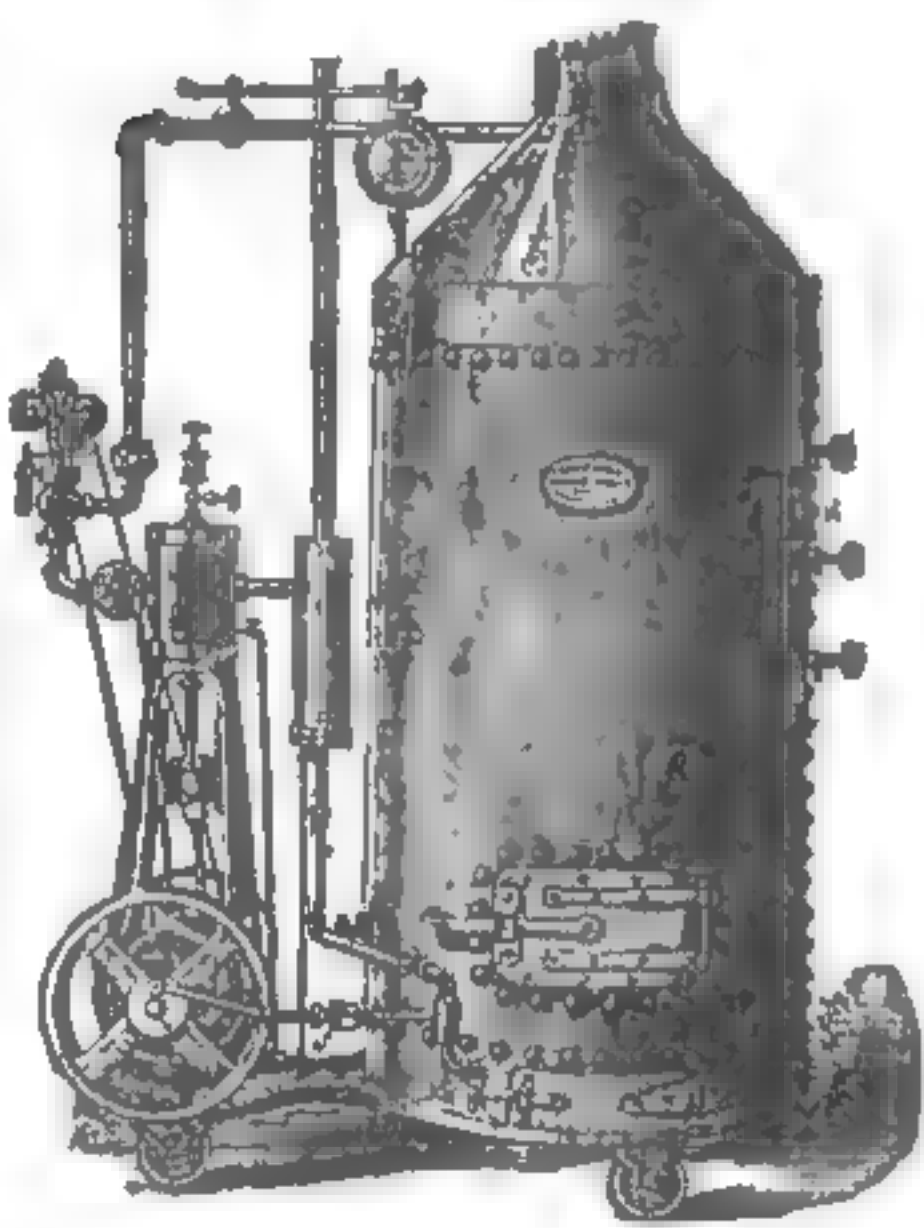
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A Large Assortment of Machinery.

The Best 8-Horse Power Semi-Portable Upright Engine and Boiler Made.



SPECIAL PRICE. GUARANTEED.

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## THE BEST AND CHEAPEST CORN AND COB CRUSHER

IN THE WORLD.

All wearing parts cast of a steel mixture. Notice difference in construction. Most area where most work is done, where all other crushers have least area where most work is done. Low priced machinery is not the cheapest, considering durability and efficiency. Sent on 80 days' trial when satisfactory reference is furnished.

Please Send for Circulars.

RIGHT-HAND RUNNER.

LEFT-HAND MILL.

DRIVEN FROM ABOVE.



R. C. McCULLEY, LANCASTER, PENN.

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Corrugated Iron is represented to be "just as good as" our Patent Edge Corrugation. While this is complimentary to our material, unfortunately it does not work out well in practice.

The only Corrugated Iron that can be recommended for roofing is manufactured by

The Cincinnati Corrugating Co.  
PIQUA, OHIO.

## "ELECTRIC" BELT DRESSING.

A WONDERFUL LEATHER PRESERVATIVE, suitable for Leather, Rubber, Cotton or Rawhide Belting. Belts dressed with this dressing will last twice as long and transmit 100 per cent. more power. Save your Belting and prevent heating of journals by running them under a reduced tension. Sold on approval to responsible parties. SEND FOR CIRCULARS.

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If persons who have been induced to purchase the "Ancient Edition" by any misrepresentations will advise us of the facts, we will undertake to see that the seller is punished as he deserves.

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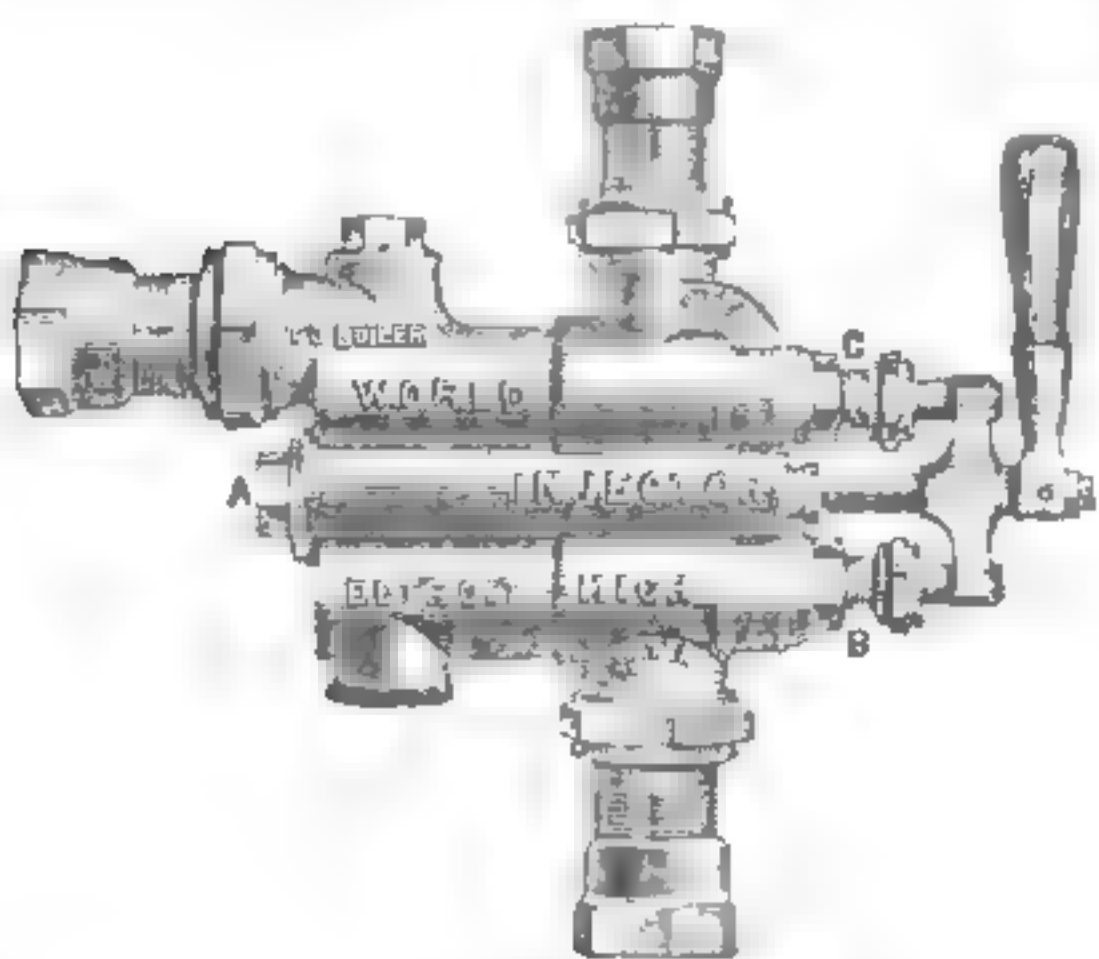


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AMERICAN INJECTOR COMPANY,

175 Larned Street West, DETROIT, MICH.







Sweetwater, Tex., men project a flour mill.  
 W. P. Hulse, Bristol, Tenn., starts a flour-mill.  
 Dr. Frank, Philadelphia, Tenn., improves his mill.  
 The Farmers' Alliance project a grist-mill in Pottsborough, Texas.  
 G. T. Steiner & Co., Petersville, Md., builds a flour-mill near that town.  
 The Jarvis grist-mill, Clearmont, N. H., burned; loss \$8,000; no insurance.

The Beaumont, Texas, Roller Grist Mill owners want hominy-making machinery.

G. P. Young, Hampton, Fla., wants machinery for a new gristing and rice mill plant.

Major McDonald's flour-mill, Jefferson, Tex., burned; loss \$12,000; insurance \$5,500.

The Sweet Water, Tenn., Mills Co. put in a 300-horse-power engine and increase capacity.

Bunwell's flouring-mill, near Honesdale, Pa., burned; loss \$8,000; covered partially by insurance.

Hill & Putney, flour-mill, Royalton, Minn., are succeeded by T. B. Hawkes & Co., incorporated.

Yantis and Neely, Henrietta, Texas, will double the capacity of their flour-mill; machinery is wanted.

J. T. Jay, Hilton Station, Ga., wants machinery for a new grist-mill.

Waddy, Ky., men project a flour mill.

Wm. Phillips and others, Wallace's Station, Va., have organized a stock company to build a flour-mill; machinery is wanted.

Tileston & Chandler build 200-barrel roller flouring-mill at Osakis, Minn. They build also a 20,000-bushel grain storage. They will put in electric lights.

D. E. Decker and others, Quanah, Tex., formed a stock company to build a 100-barrel roller flouring-mill; a complete outfit of machinery is wanted.

The Illinois Thrashers' Association has fixed prices for the season as follows: Wheat 4 cents a bushel; oats 2 cents a bushel; shelling corn 1½ cents a bushel.

A Winona, Minn., dispatch of May 15 says: The Winona Mill Company's immense flour-mill, with elevator and surrounding buildings, was burned this morning. The fire started in the ceiling of the fire room. Loss \$300,000; insurance \$200,000.

The oldest lawsuit on record is one now being tried in the highest Russian court at St. Petersburg; it was brought 500 years ago against the city of Kamanez-Podolsk, by the heirs of a dead nobleman, to recover many thousand acres of his estate, confiscated by the municipality; the written testimony is said to weigh 45 tons.

A dispatch from Washington, D. C., dated May 16, says: Frank Barry, secretary of the Millers' National Association, has prevailed upon the Republican members of the Ways and Means Committee to agree upon an amendment to the tariff bill reducing the rate on burlaps from 1½ to 1 cent, and to change the customs administration paragraph so as to render the collection of rebate on imported burlaps re-exported more simple.

A report from Lincoln, Nebraska, under date of May 14, says: The Supreme Court has decided the celebrated Elmwood Elevator case. A year ago the Farmers' Alliance at Elmwood appealed to the Missouri Pacific Railroad Company for permission to erect an elevator on the right of way at that place, and their request was refused. The Alliance carried the case to the state board of transportation and secured an order on the company to comply with the request. The company refused to obey, and Attorney-General Luce, on behalf of the board and the Alliance, applied to the Supreme Court for a writ of mandamus to compel the railroad company to respect the orders of the board. The Court granted the writ, thus

sustaining the action of the board. The decision settles the question of the power and jurisdiction of the board of transportation over this class of cases. It also settles the right of the people to build elevators at the company's stations and to receive equal shipping facilities with all others. A dozen similar cases are pending in various parts of the State.

Says the Minneapolis *Market Record*: As to future prospects there is much difference of opinion with respect to the suffering of spring wheat in the Northwest by cold and dry weather. All reports from the middle and northern portions show a situation quite unpleasant at least. Frost has cut the leaves, and lack of moisture added has retarded the growth of the root. The plant appears to be feeble in many sections. Warm rains would undoubtedly work wonders in giving it the start it has not had. Many reports express almost hopeless anxiety now, and say a few weeks continuance of the present conditions would greatly reduce the yield. There are those who claim to believe no serious conditions exist, and say there is little present cause of alarm. The rains of last week in the southern parts of Minnesota and Dakota and in northern Iowa supplied an amount of moisture that did great good. Still, hard soaking rains are needed there, to give something more than temporary relief. There is no doubt that the crops of wheat are threatened with what may develop into real disaster. On the other hand if there comes an early rain the outlook would quickly improve.

The St. Louis millers evidently intend to do all they can to make the convention of the Millers' National Association, in Minneapolis, in June, a success, as may be seen from the following letter sent out by Messrs. Louis Fusz, Alex. H. Smith and George Bain, of St. Louis, under date of May 10: "The millers of St. Louis have concluded a contract with the Wabash Line for themselves and their friends to attend a meeting of the National Association that commences in Minneapolis June 17, and which will probably have a three-day session. A special train will leave St. Louis, from the Union Depot, on the morning of June 16, at nine o'clock, enabling all our friends to reach here from the East, South or West in time to go on that train, which will reach Minneapolis at 7 a. m. the next day, but those who prefer, and whose roads cross the Wabash at Moberly, Mo., or Ottumwa or Grinnell, Iowa, can arrange to join the excursion at either of those places and have their sleeping-car berths reserved here, so that their fare will be in the same proportion as we pay, and the accommodations exactly the same as our St. Louis people will have. We purpose running the excursion in a similarly pleasant manner to that of our long-to-be-remembered trip to Buffalo two years ago. To make it the success that that was, we must know, as early as possible how many will go and whether their women folks will accompany them, so that we can locate those with families in separate cars, and allow the unfortunates who have no families, or who selfishly leave them at home, to 'flock by themselves.' It is unnecessary to say how much can be learned by the trip, how kind the Minneapolis people will be, or how cheap it will cost to see, in one city, the largest aggregation of flour-mills in the world. We want our section of country largely represented, because matters of great interest will come before the meeting, consolidation of mills, and, where that is impracticable, such local associations as will be beneficial to their members without detriment to the farmer or the consumer; the Inter-State Commerce Law and its relation to the milling industry; patents and their regulation; the foreign bill-of-lading; milling in transit, and many other matters that the counsel and assistance of every miller in the United States is necessary to assist in formulating and making effective. The fare from St. Louis to Minneapolis and return is \$15.85; the sleeping-car berths are \$3 each way. The tickets will be good until June 22, and while we go North in a body, those desiring and having the time to spare in Minnesota can return at any time during the life of the ticket. Communications addressed to either of the undersigned will receive prompt attention, and the earlier you can send them the better chance you will have for a good berth and a certainty of being able to get on that train."

#### PERSONAL MENTION.

Mr. Henry Mockford, of Batavia, N. Y., made a pleasant call on THE MILLING WORLD one day last week.



THE BEST ARE THE CHEAPEST.

New York

MILLERS' FLOUR SACKS A SPECIALTY.

THE PATRONAGE of the MILLING TRADE is MOST RESPECTFULLY SOLICITED.

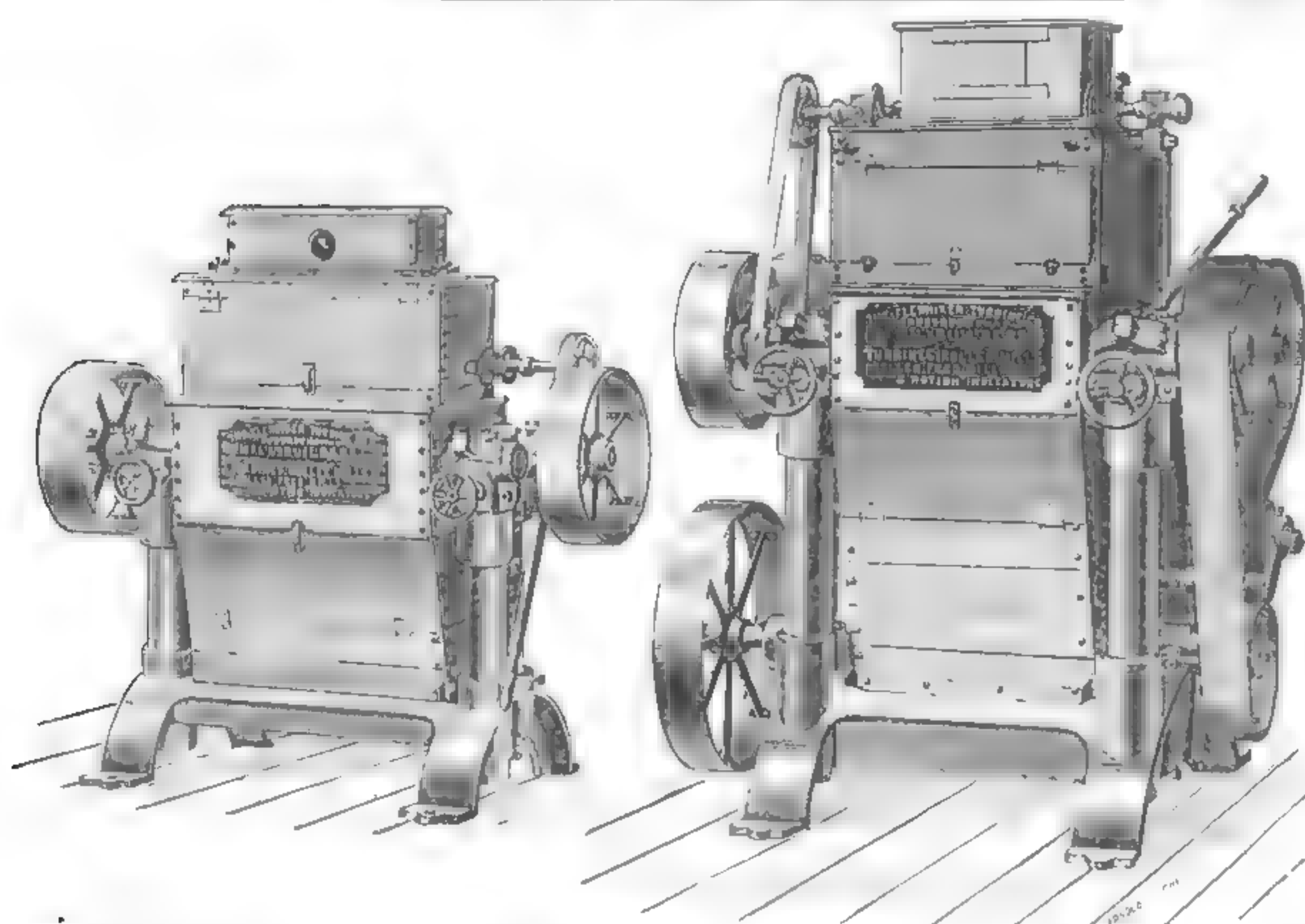


# ONE REDUCTION TO THE FRONT!

*Ye jolly millers, one and all,  
Who granulate with burrs,*

A Moses has Come to Deliver You from Egypt. Cease  
Trying to Make Bricks without Straw. The Red  
Sea of Expense Has Been Divided.

**The Wilderness of Reductions has Been Shortened. There  
is Manna in Abundance for Those Who Believe.  
Listen to the Glad Tidings of Great Joy!**



**ONE REDUCTION ON ROLLS IS  
A SUCCESS!** Two years of experience in a dozen States, with all kinds of Wheat and diversified climates, has justified us in recommending its adoption in place of burrs in each and every case, whether for grinding Wheat, Rye or Buckwheat. We have perfected Roller Mills, Bolts and Scalpers peculiarly adapted to the wants of Small Mills, and all our machines *infringe no patent's*, and no claims are made that they do.

Having consummated a bargain with **MR. O. C. RITTER**, the author and patentee of **One Reduction**, which gives us the *exclusive right* to construct mills under his patents, our patrons in the future will receive a license from Mr. Ritter.

**SPECIALTIES!**

Graham Roller Mills, Round Reels and Scalpers, Sectional Round Reels, Grain Separators, Motion Indicators. Before buying any of these machines send for our prices and descriptive circulars.

**SPECIALTIES!**

Second-Hand Machinery, and Bargains in Every Line.

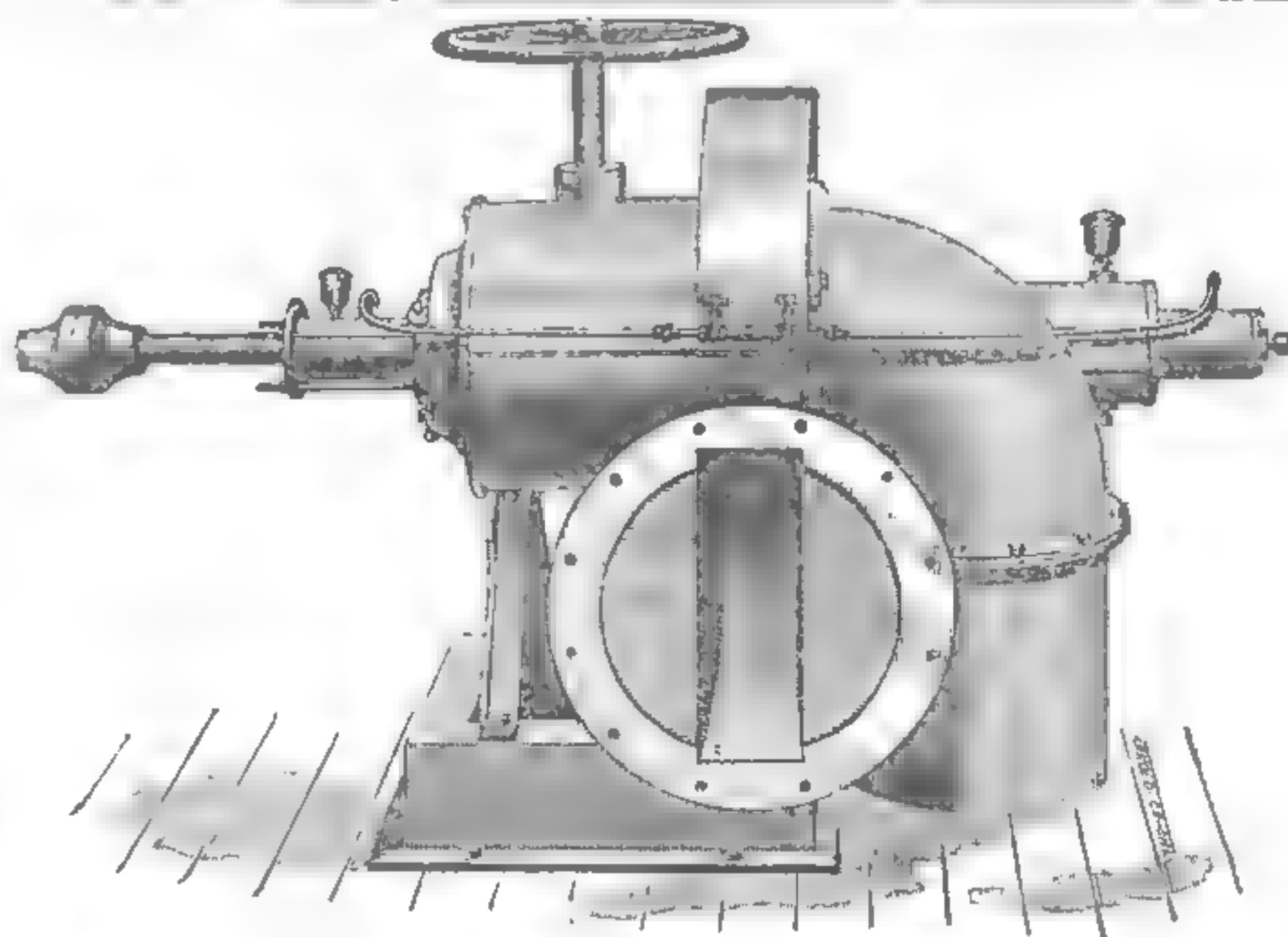
SEND FOR CATALOGUE OF

**The Best Turbines!**

VERTICAL OR HORIZONTAL,  
With or Without Iron Flumes,

—BUILT BY THE—

**Flenniken Turbine Co.**  
DUBUQUE, - IOWA.





## EUROPEAN ECHOES.

ITALY continues to import very freely of wheat, the total for January, February and March being 6,080,000 bushels against 4,650,000 bushels in the corresponding period last year. As a matter of fact the continent has been taking a larger percentage than ever of the Russian and Roumanian shipments, probably nearly 70 per cent.

SAYS Beerbohm's "List" of April 30: As the reports of the American wheat crops seem to be decidedly unfavorable, the prospects of this year's Russian crops are now naturally becoming of so much greater interest. From Kiev the following report has been received this week: It is only now that a clearer idea can be formed of the condition of the crops in southern Russia; it is well known that the winds experienced in March were the cause of serious apprehensions, but these winds proved to have been comparatively moderate, so that in this respect there remains sufficient cause to hope for a satisfactory outturn. The Governments of Kiev, Podolia and Volhynia, and Ukraine, which comprise the whole stretch of the Eastow railway, show a condition of the autumn sown crops equally fine as two years ago, say in 1888; the plant is most vigorous and is already so developed that possible future night frosts will not be able to destroy the same, unless, indeed, such frosts should be of extraordinary strength. In the Governments of Kurst, Cherinkof, Poltawa and Bessarabia, up the borders of the Government of Kherson, likewise show a very favorable condition of crops. In the Government of Kherson, however, and especially in the southern parts of the same, the black frosts of December and January prove to have done injury. In these districts a considerable area is being reploughed. Upon the whole, the present hopes are for good crops in Southern Russia, unless there should be future unfavorable weather influences.

## COTEMPORARY COMMENT.

Complaints of the refusal of farmers to furnish assessors with agricultural statistics have become so general that the Secretary of the State Board of Agriculture has taken the matter in hand and is using his influence to get the desired information. The farmers make the point that the information contained in the statistics is used to their disadvantage. The Secretary of the Board of Agriculture calls attention to the fact that reports sent out from his office as to crops have increased the price of wheat 25 cents a bushel and have doubled the price of corn. Judging from the regularity with which people on the Board of Trade get advance information of the contents of the state agricultural reports, somebody at head-quarters must be casting anchors to the windward.—*Chicago "Daily Business."*

The efforts of American railway capitalists to check the operations of Canadian roads in the United States have so far borne little fruit, but it is evident that the fight is not over yet, and that, in spite of the protest of western producers and of such centers as Chicago, Boston and Minneapolis, the New York railroad rings will persist in their efforts to bring the Grand Trunk and Canadian Pacific under the rulings of repressive laws.—*Montreal "Journal of Commerce."*

The Directors of the Chicago Board of Trade have passed resolutions requesting Congress to appropriate a sufficient sum to build a new steamer for use of the United States navy on the lakes, to take the place of the old steamer Michigan, which they claim is not good enough to represent the Government properly.—*Chicago "Daily Trade Bulletin."*

Opinions differ widely with respect to the condition of the spring wheat crop. In some respects it is far better than a year ago. Then a large area was blown out so badly that very much of it had to be seeded over again. A little of it has been experienced this year, but to no great extent. All through northern Iowa, southern Minnesota and South Dakota the weather has been quite dry, but the crop looks

fine now, and recent rains have given the fields a nice start.—*Minneapolis "Market Record."*

## CONSUMERS OF AMERICAN WHEAT.

American wheat and wheat flour find consumers in many and widely separated countries. Following is a compilation showing the destination of the wheat grain and flour exported from the United States during several years past, together with the amounts taken by the various foreign customers mentioned. The 30th of June is understood in the table as the end of the fiscal year mentioned:

	1889. Wheat, Bushels.	1888. Wheat, Bushels.	1887. Wheat, Bushels.	1886. Wheat, Bushels.
Great Britain.....	31,568,536	41,322,300	54,352,915	40,678,739
Belgium .....	1,835,942	5,925,077	10,498,727	4,842,934
Brazil.....	415,507	149	41,913	4,995
France ....	7,655,176	4,212,947	19,546,090	2,014,404
Germany .....	9	768,429	888,857	356,352
Canada .....	1,851,925	4,524,849	4,679,169	2,507,495
British W. I.....	612	2,311	1,064	2,045
Portugal.....	1,996,732	4,276,519	4,011,406	3,552,850
Cuba .....	30	150	181	123
All other.....	1,089,660	4,756,527	7,819,521	3,455,298

During the same years the exports of wheat flour, by countries, were as follows:

	1889. Flour, Barrels.	1888. Flour, Barrels.	1887. Flour, Barrels.	1886. Flour, Barrels.
Great Britain.....	5,271,344	8,070,490	7,632,071	4,914,732
Belgium .....	47,417	160,524	166,414	30,044
Brazil .....	678,972	584,670	748,937	542,499
France.....	200	8,528	435	93
Germany.....	13,009	45,912	43,499	10,532
Canada .....	1,133,354	572,161	550,698	507,297
British W. I.....	576,794	622,056	527,053	587,082
Hayti.....	192,282	162,990	111,786	134,997
Portugal.....	22,005	42,493	21,723	7,472
Cuba.....	243,153	232,543	217,160	198,464
Porto Rico.....	129,946	134,549	108,503	96,833
Gibraltar .....	2,719	4,357	8,150	6,817
All other.....	1,263,608	1,272,296	1,382,020	1,142,326

The total exportations of wheat grain and flour for several years ending June 30 have been as follows, showing wide fluctuations:

	Wheat, Bushels.	Flour, Barrels.
1889 .....	46,414,129	9,374,803
1888 .....	65,789,261	11,963,574
1887 .....	101,971,949	11,518,419
1886 .....	57,759,209	8,170,241
1885 .....	84,653,714	10,648,145
1884 .....	70,349,012	9,152,260
1883 .....	106,385,523	9,205,664
1882 .....	95,271,802	5,915,686
1881 .....	150,565,477	7,945,786
1880 .....	153,252,795	6,011,419
1879 .....	122,353,936	5,629,714
1878 .....	72,404,961	3,947,333

These figures show a gradual decrease in grain exports and a corresponding increase in flour exports. The drop in 1889 to 46,414,129 bushels of wheat was caused by shortages in the American crop of wheat and very abundant wheat crops in Russia. The figures for the fiscal year ending June 30, 1890, will doubtless rise to nearly the average, as the total for the first nine months of the year was 41,914,147 bushels of wheat grain and 8,986,246 barrels of wheat flour.

## CATARRH.

## CATARRHAL DEAFNESS—HAY FEVER.

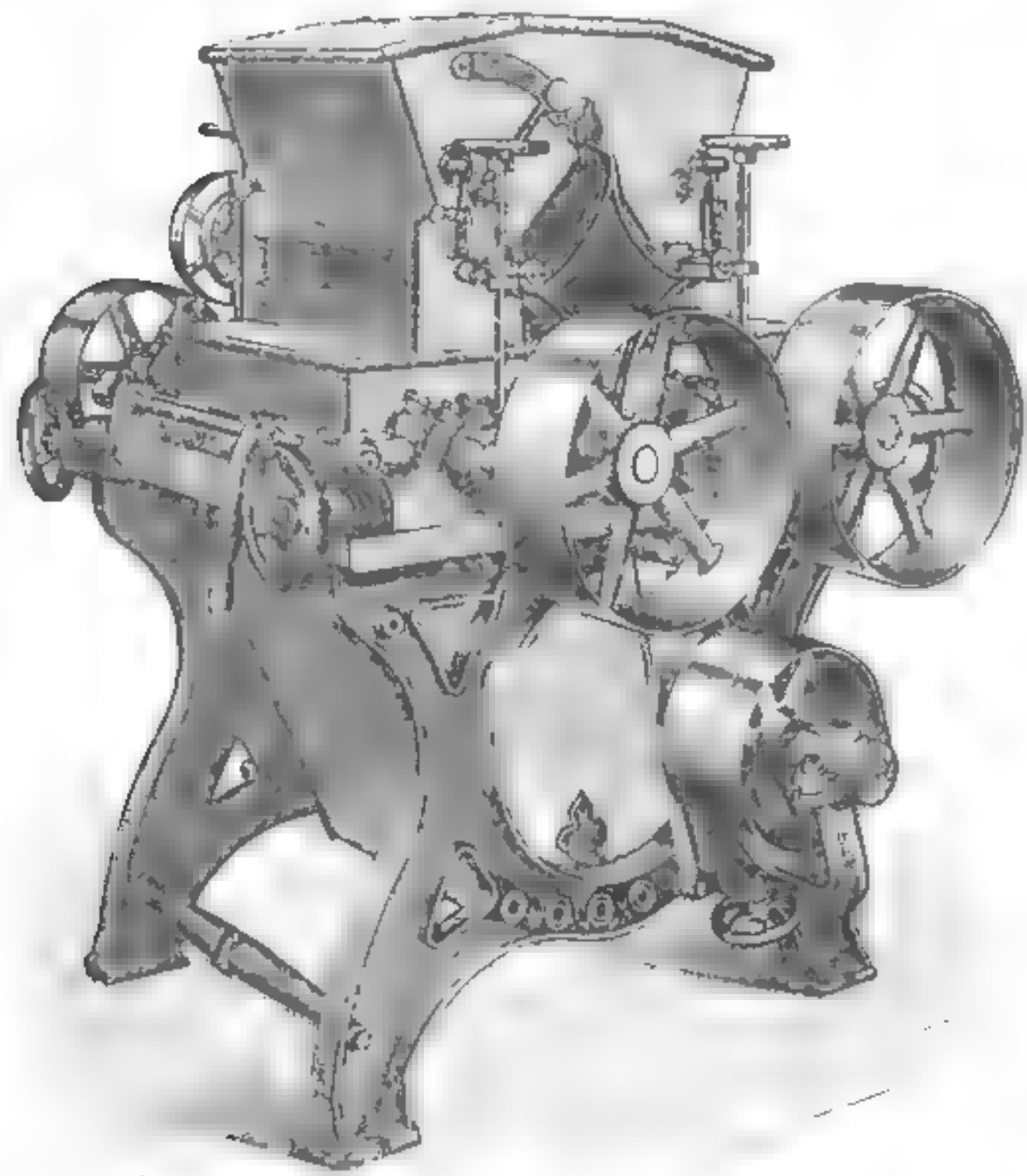
## A NEW HOME TREATMENT.

Sufferers are not generally aware that these diseases are contagious, or that they are due to the presence of living parasites in the lining membrane of the nose and eustachian tubes. Microscopic research, however, has proved this to be a fact, and the result of this discovery is that a simple remedy has been formulated whereby catarrh, catarrhal deafness and hay fever are permanently cured in from one to three simple applications made at home by the patient once in two weeks.

N. B.—This treatment is not a snuff or an ointment; both have been discarded by reputable physicians as injurious. A pamphlet explaining this new treatment is sent free on receipt of stamp to pay postage, by A. H. Dixon & Son, 337 and 339 West King street, Toronto, Canada.—*Christian Advocate.*

Sufferers from Catarrhal troubles should carefully read the above.



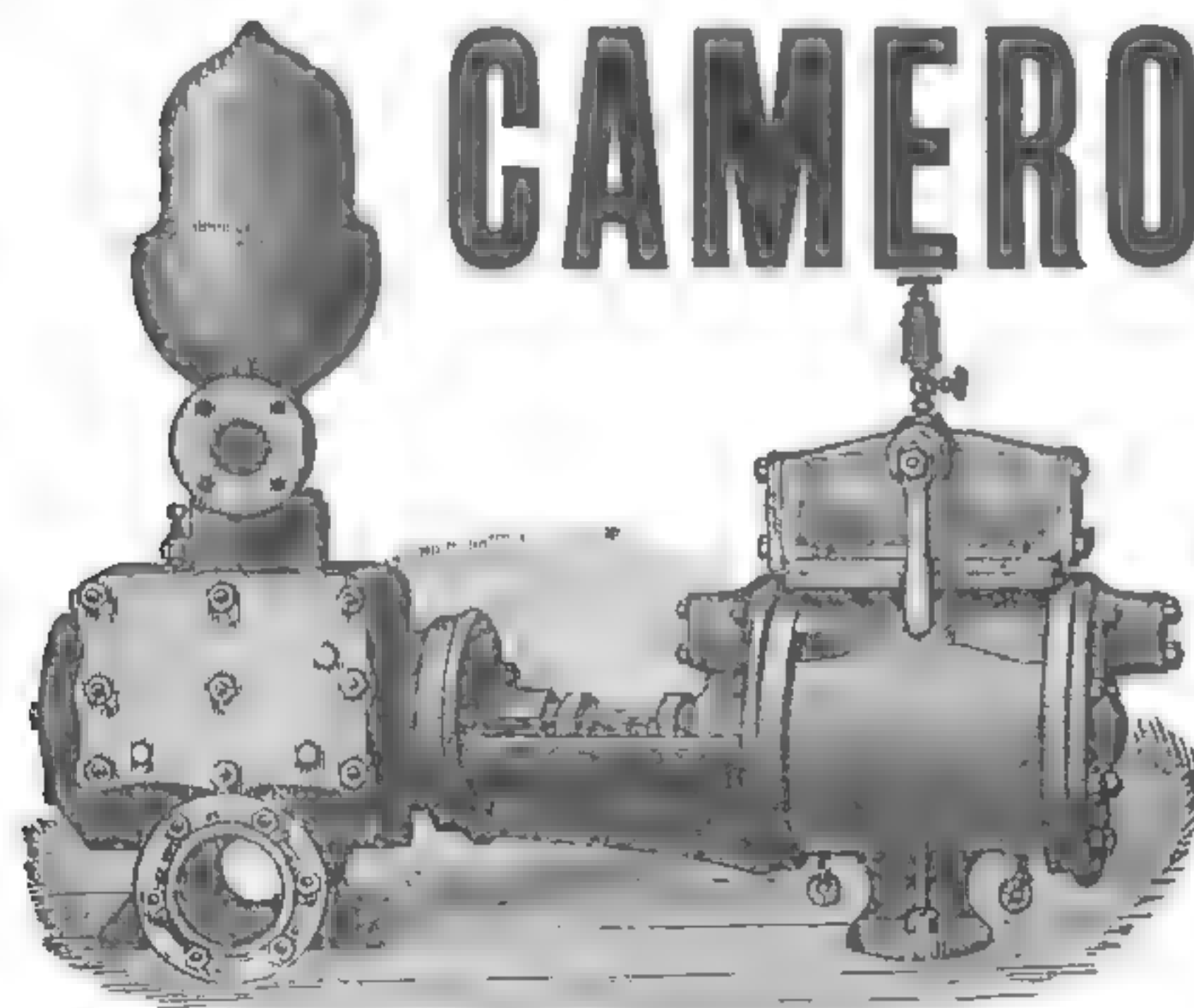


# Munson Bros., Utica, N. Y.

## MANUFACTURERS OF ROLLER MILLS

Plans and Specifications Furnished  
for Complete Mills.

SEND FOR PRICES.



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THE STANDARD OF EXCELLENCE.

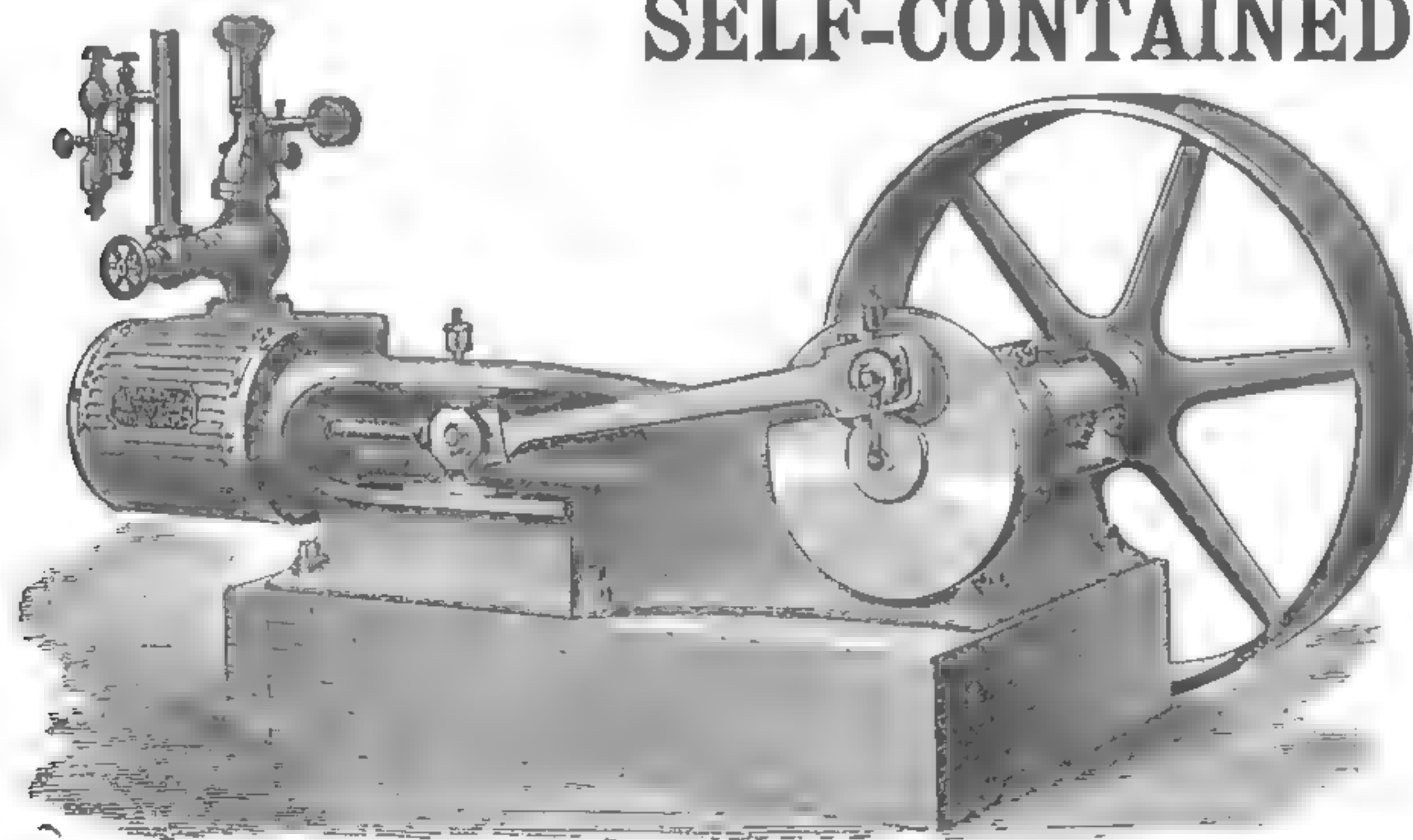
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*"NO OUTSIDE VALVE GEAR."*

Steam, Air & Vacuum Pumps in Every Variety

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## THE A.S. CAMERON STEAM PUMP WORKS

Foot of East 28d Street, New York,



# SELF-CONTAINED STEAM ENGINES

Stationary or  
Semi-Portable.

High Standard Maintained.  
Prices Greatly Reduced.

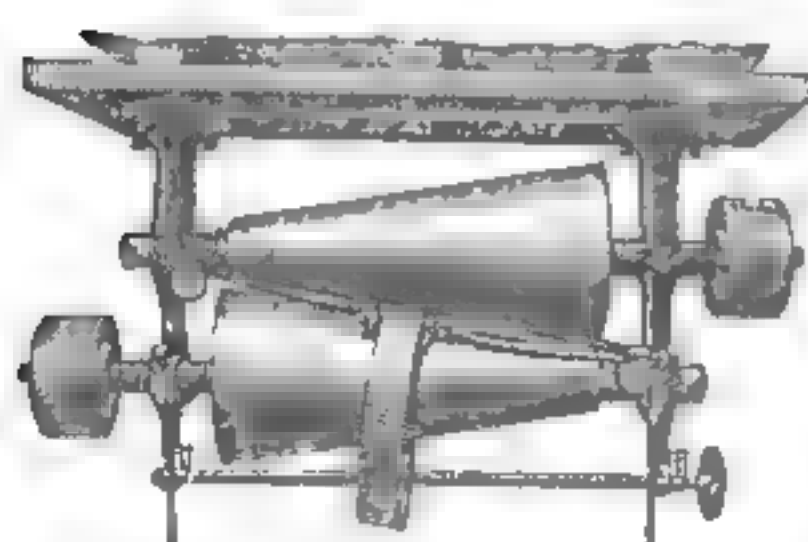
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## Chandler & Taylor Co., Indianapolis, Ind.

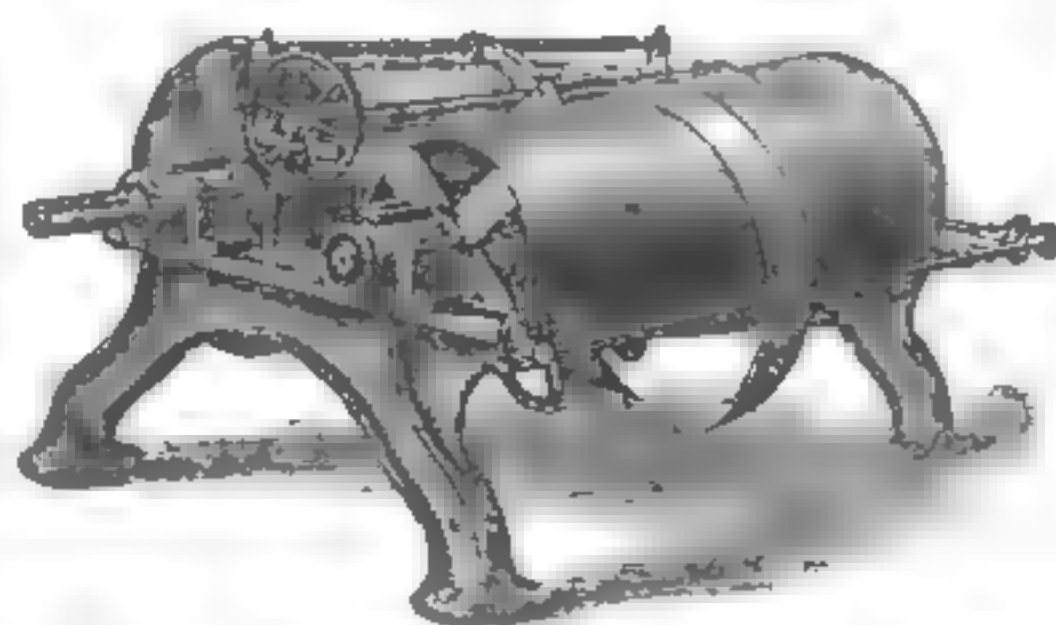
Engines, Saw-Mills and Drain Tile  
Machinery a Specialty.

# THE EVANS FRICTION CONE & FRICTIONAL GEARING

"PATENTED."



This cut represents a set of hanging cone pulleys. This pattern is intended for that class of machinery that stops and starts at the same speed, and at the same time be able to change the speed more or less while running. These cones are also fitted with a governor where a steady motion is required and the initial power is



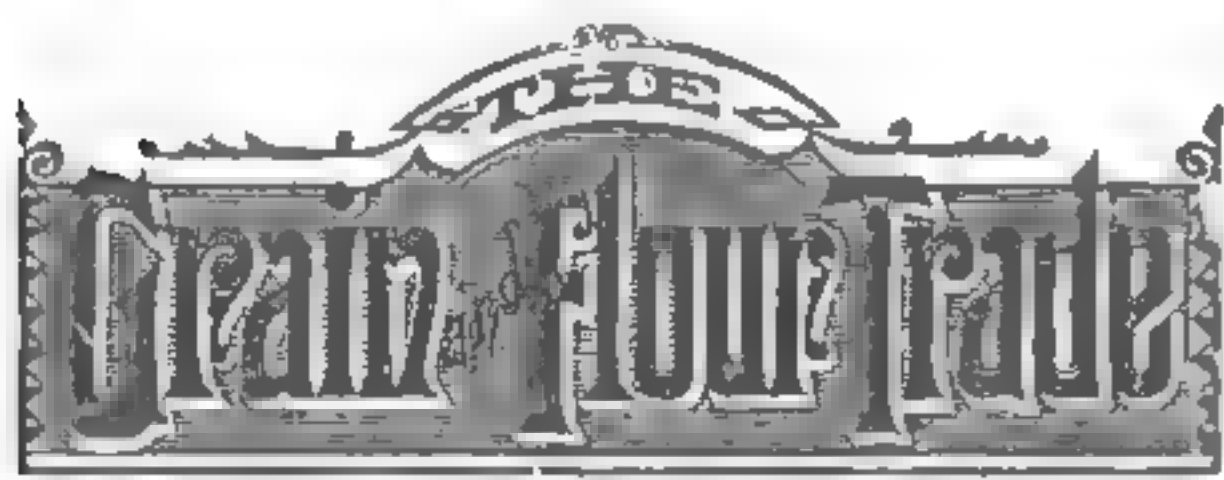
fluctuating. All sizes made from 1/4 Horse Power to 50 Horse Power. SEND FOR ILLUSTRATED

CATALOGUE

EVANS FRICTION CONE CO., 85 Water St., BOSTON.







OFFICE OF THE MILLING WORLD,  
BUFFALO, N. Y., May 17, 1890.

Friday of last week brought active, irregular and somewhat excited markets. In New York May wheat closed at \$1.00½, and June at 99¾c. Receipts were 162,787, exports 62,888, and options 7,500,000 bushels. The Illinois wheat crop report was very unfavorable. May corn closed at 42½c., with receipts 380,798, exports 254,409, and options 2,400,000 bushels. May oats closed at 34c., with receipts 221,453, exports 94,510, and options 1,400,000 bushels. Wheat flour was held higher with wheat, and buyers were offering late asked prices. Exporters were out of the market. Receipts included 5,972 sacks and 17,776 barrels, and exports were 11,339 sacks and 3,636 barrels. Exporters were waiting for the government crop report. The minor lines were featureless.

Saturday brought a higher opening market on bad crop reports and estimates, and a lower closing on heavy realizing. May wheat closed at 99¾c., with receipts 128,362, exports 92,816, and options 2,728,000 bushels. The report of the government crop bureau was bad, but was better than had been expected. May corn closed at 41¾c., with receipts 500,235, exports 431,673, and options 536,000 bushels. May oats closed at 33¾c., with receipts 118,665 and exports 12,106 bushels. Wheat flour was held firmly at the late advance, but ruled quiet. Receipts were 5,619 sacks and 32,181 barrels, and exports 820 sacks and 18,293 barrels. The minor lines were unchanged.

Monday brought quiet but unsettled markets, with wider fluctuations all around. May wheat closed at 99½c., after selling down to 98c. Receipts were 315,624, exports 30,910, and options 4,136,000 bushels. European reports indicated good crop conditions generally, excepting in some parts of France and Russia. May corn closed at 42½c., with receipts 946,852, exports 477,581, and options 800,000 bushels. May oats closed at 33½c., with receipts 243,047, exports 76,309, and options 220,000 bushels. Wheat flour ruled lower on the government report. Buyers and sellers were 10@25c. apart. Receipts were 10,063 sacks and 52,848 barrels, and exports 8,970 sacks and 20,848 barrels. The minor lines were unchanged. The visible supply in the United States and Canada was:

	1890.	1889.	1888.
	May 10.	May 11.	May 12.
Wheat.....	22,791,913	23,850,475	29,271,771
Corn.....	11,415,428	11,204,430	6,924,504
Oats.....	4,201,166	6,763,655	4,108,084
Rye.....	1,019,144	1,363,799	242,388
Barley.....	782,891	599,380	613,888

Tuesday brought dull, weak and generally lower markets on better weather reports from the West and realizing by longs. May wheat closed at 98c., with receipts 107,780, exports 44,581, and options 2,400,000 bushels. European cables weakened on the unexpected increase of 1,064,000 bushels of wheat on passage. May corn closed at 42c., with receipts 474,183, exports 357,978, and options 1,440,000 bushels. May oats closed at 33c., with receipts 260,687, exports 115,897, and options 380,000 bushels. Wheat flour ruled slow, but was firmly held, with buyers and sellers 10@25c. apart. Receipts included 22,946 sacks and 31,825 barrels, and exports 23,068 sacks and 7,559 barrels. The minor lines were quiet. Rain was reported in Dakota. The weather reports were somewhat confusing. One grain circular issued on Tuesday said: "The winter wheat acreage last December was reported as 25,900,000 acres; on that basis the winter wheat killed is important, but the quantity is unknown, Illinois alone reporting near 750,000 acres ploughed up. The most common estimate is now for a yield of 11½ bushels per

acre. Our Northwest advices report the crop in parts of Dakota as very promising." From Minnesota our advices say: "A very large part of the Northwest is in need of rain; where it did rain it has been made more of than it amounts to. The weather is very cold and backward, with ice forming nightly in several localities; the season is very late."

The following shows the amount of wheat and flour together with the amount of corn on passage to United Kingdom, for ports of call or direct ports for the weeks mentioned:

	1890.	1889.
	May 13.	May 14.
Wheat and flour, qrs....	2,675,000	1,669,000
Corn, qrs.....	702,000	235,000

The following shows the amount of wheat and corn on passage to the Continent for the past week and for the same week last year:

	1890.	1889.
	May 13.	May 14.
Wheat, qrs.....	734,000	318,000
Corn, qrs.....	469,000	158,000

	Qrs.
Shipments India wheat to U. K.....	7,500
do do Continent..	52,500

The imports into the United Kingdom for the past week, the previous week and for the same week in previous year were as follows:

	1890.	1890.	1889.
	May 6.	April 29.	May 7.
Wheat, qrs.....	171,000	273,000	172,000
Corn, qrs.....	303,000	239,000	305,000
Flour, bbls.....	212,000	206,000	158,000

Wednesday brought weak and lower markets, on heavy arrivals and deliveries. Oats alone was higher. May wheat closed at 97½c., with receipts 112,311, exports 86,233, and options 2,840,000 bushels. Dispatches from the Northwest said a great deal of rain or snow had fallen there lately, especially in North Dakota. Reports from Kansas said that the condition of winter-wheat in some counties in that State should have been 65 per cent, instead of 92 as in the Government report, and that millers there are getting little wheat even at 80c. The damage is due to dry winds and cold weather. Snow 3 inches deep was reported over most of the area north of the Northern Pacific Railroad. Seeders asserted that the snow is good for the crop. May corn closed at 40¾c., with receipts 479,701, exports 410,489, and options 3,520,000 bushels. Wheat flour was very dull, and buyers were buying only what they were compelled to buy. A Liverpool flour circular of May 1 gave a table of imports of flour into the United Kingdom for seven months of this crop year, September 1 to May 1, at 4,111,870 sacks, against 3,379,433 sacks of 280 pounds a year ago in the same time. Of this amount, 3,215,578 sacks were from the United States, 314,923 from Canada, but mostly through from the United States: 320,359 from Austro-Hungary, 159,514 from Germany, 23,828 from France, and 73,094 from other countries. May oats closed up at 33½c., with receipts 218,920, exports 49,552, and options 355,000 bushels, and options 355,000 bushels. Rye grain was dull and unchanged at old quotations: No. 2, 60c; No. 1, 61c; Canada, 60@60½c; ungraded State afloat, 58@59c, and on track, 57@58. Barley was out of the market, except for occasional small lots and quoted unchanged. Extra No. 2 Canada 65@66c; No. 1 do 68c; State nominal. Malt was nominally unchanged. 85@90c. for city-made Canada 80@85c for country do, 75@78c for six-rowed and 68@70c for two-rowed asked. Mill feed was dull at old figures, 80@85c in round and job lots, with holders more steady in view of the shutting down of New York city mills next two weeks.

Rye flour was dull at \$3.10@3.25. Corn products were unchanged and in fair demand at the following figures: Coarse meal 81c.; fine yellow 93c.; fine white 98c.; Southern 85@1.40 for common to fancy; Southern and Western in barrels \$2.35@2.45; yellow granulated \$2.60@2.65; white do \$2.70@2.75; flour \$3.00@3.25; Brandywine \$2.55.

Thursday brought unsettled markets. May

wheat closed at 97¾c., with receipts 66,000, exports 63,000, and options 2,448,000 bushels. May corn closed at 40¾c., with receipts 202,000, exports 162,000, options 1,080,000, and spot sales 234,000 bushels. May oats closed at 33¾c., with receipts 137,000, spot sales 203,000 and options 405,000. Wheat flour was dull and irregular, with receipts 10,000 and sales 20,000 packages, including the following prices: Low extras \$2.50@3.00; city mills \$4.35@4.60; city mills patents \$5.10@5.65; winter wheat low grades \$2.50@3.00; fair to fancy \$3.15@5.00; patents \$4.50@5.75; Minnesota clear \$3.65@4.65; straights \$4.10@5.15; patents \$4.50@5.90; rye mixtures \$3.65@4.35; superfine \$2.10@2.90. The Minneapolis mills ground 136,450 barrels last week, with very light scale and conditions generally unsatisfactory. The minor lines were quiet and unchanged.

#### BUFFALO MARKETS.

WHEAT—A few cars of No. 1 hard were sold early at 98c and No 1 Northern at 97c. Later 32,000 bushels of No. 1 hard were sold at 98¾c, and 20,000 bushels No 1 Northern at 97½c. to arrive. No 2 red winter was offered at 95@96c, but no sales were reported. No. 1 white sold at 96½c on track. CORN—The market weakened a little to-day. No. 2 yellow is held at 38½@38¾c, No. 2 corn at 37½@37¾c, and 1,000 bushels were sold at the latter figure. No 2 yellow sold at 38½@38¾c, No. 3 yellow is quoted at 38@38½c. OATS—The market is steady, No 2 white selling at 33½@34c, No 1 white at 35c. No. 2 mixed are held at 32c. on track, but the demand is light. Some 5,000 bushels of No. 2 white were sold at 34c and 2,500 bushels No. 1 white at 35c. RYE—Prices in this market are nominal at 56c. for No. 2 c.i.f. BARLEY—Malsters are mostly out of the market. No. 2 Canada is quoted at 65@66c, and No. 3 do at 57@60c. No trading is reported. OAT-MEAL—Akron, \$5.45; Western, \$5.25 per bbl.; rolled oats, in cases, 72 lbs., \$3.25. CORNMEAL—Coarse, 75@85c.; fine, 80@90c.; granulated, \$1.50 per cwt. MILLFEED—City-ground coarse winter, \$14.50@15.00 per ton; fine do. \$14.50@15.50; finished winter middlings, \$15.00@16.00; coarse spring do, \$14.00@14.50.

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Red Dog... .	2.50@3.25	Low grades 3.00@4.25
Rye flour ...	3 75@—	Graham. .... 4 50@—

Retail prices 50c per bbl above these quotations. Buckwheat flour \$1.40@1.75 per 100 lbs.

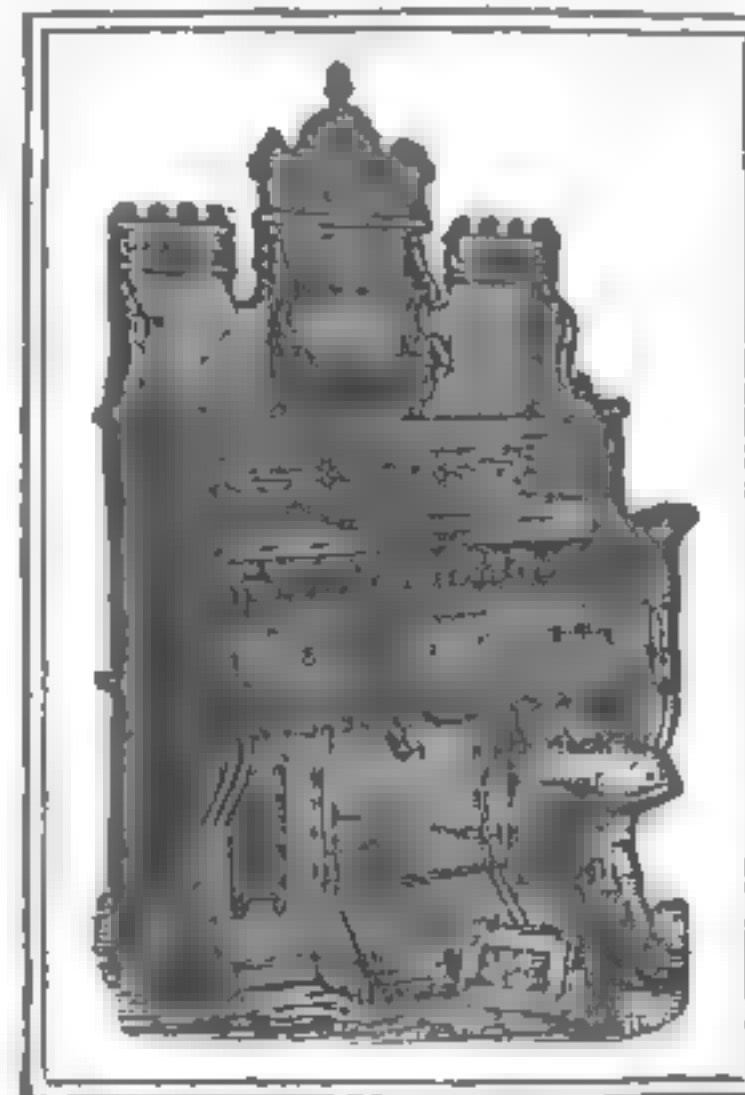
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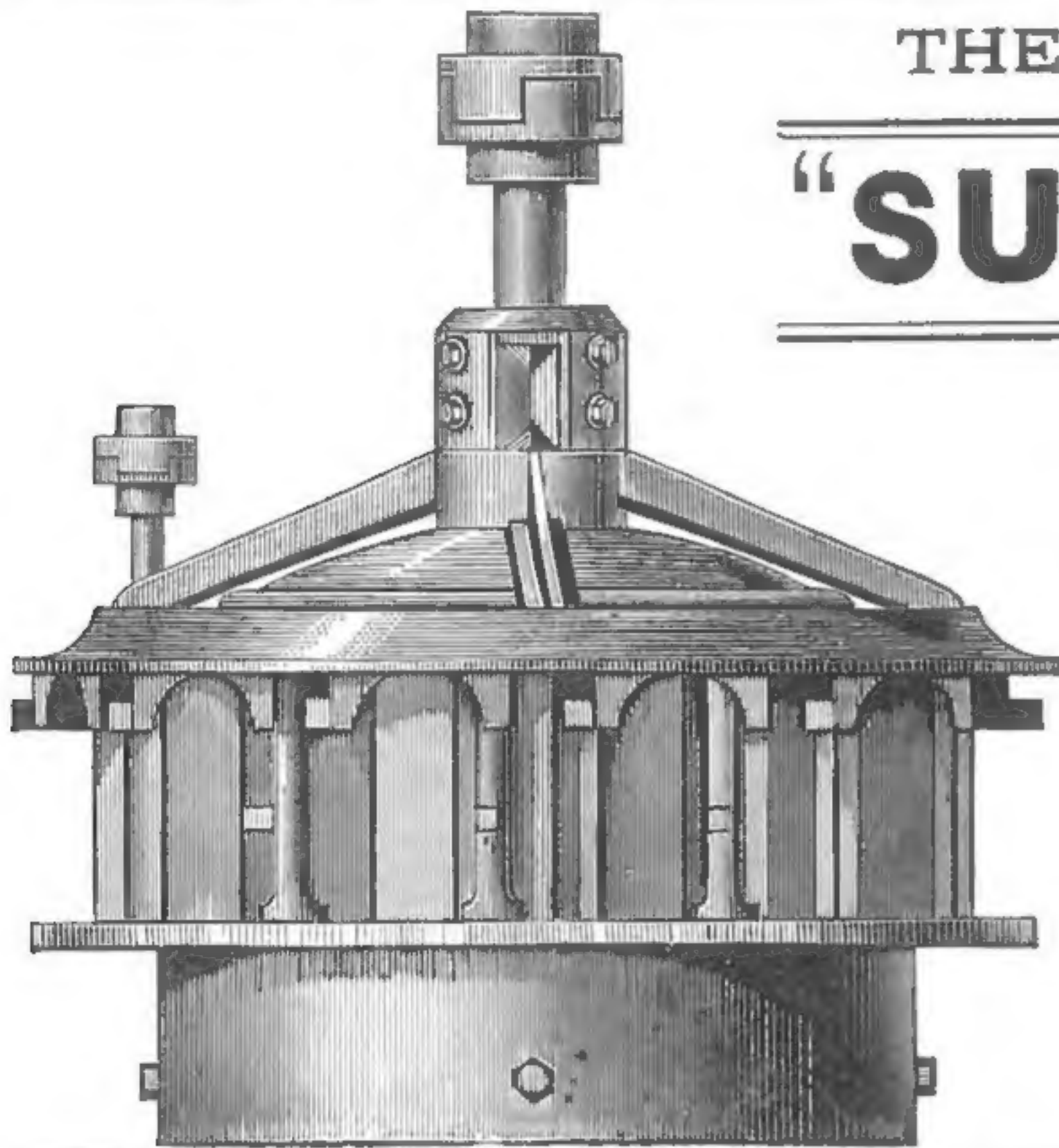
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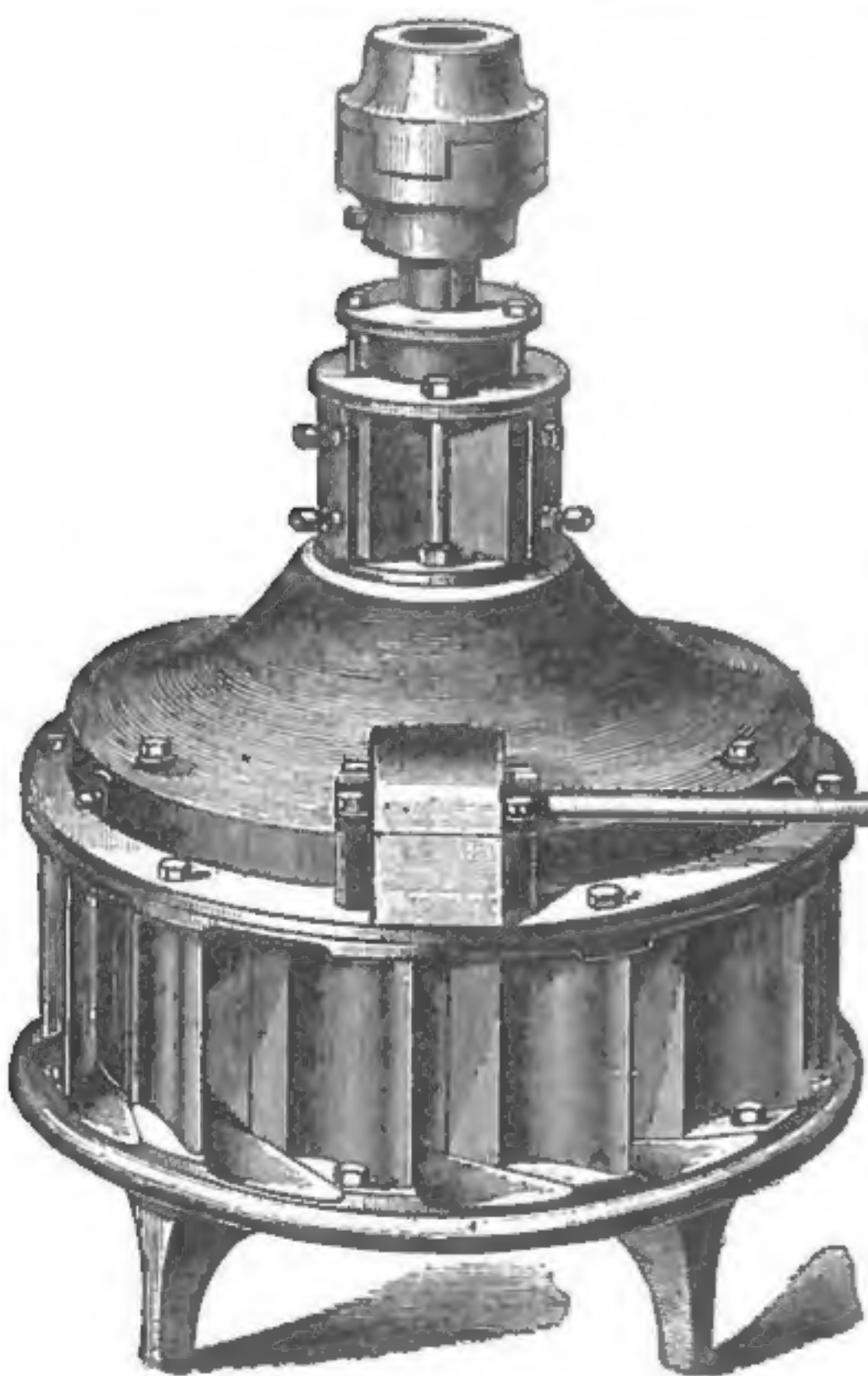
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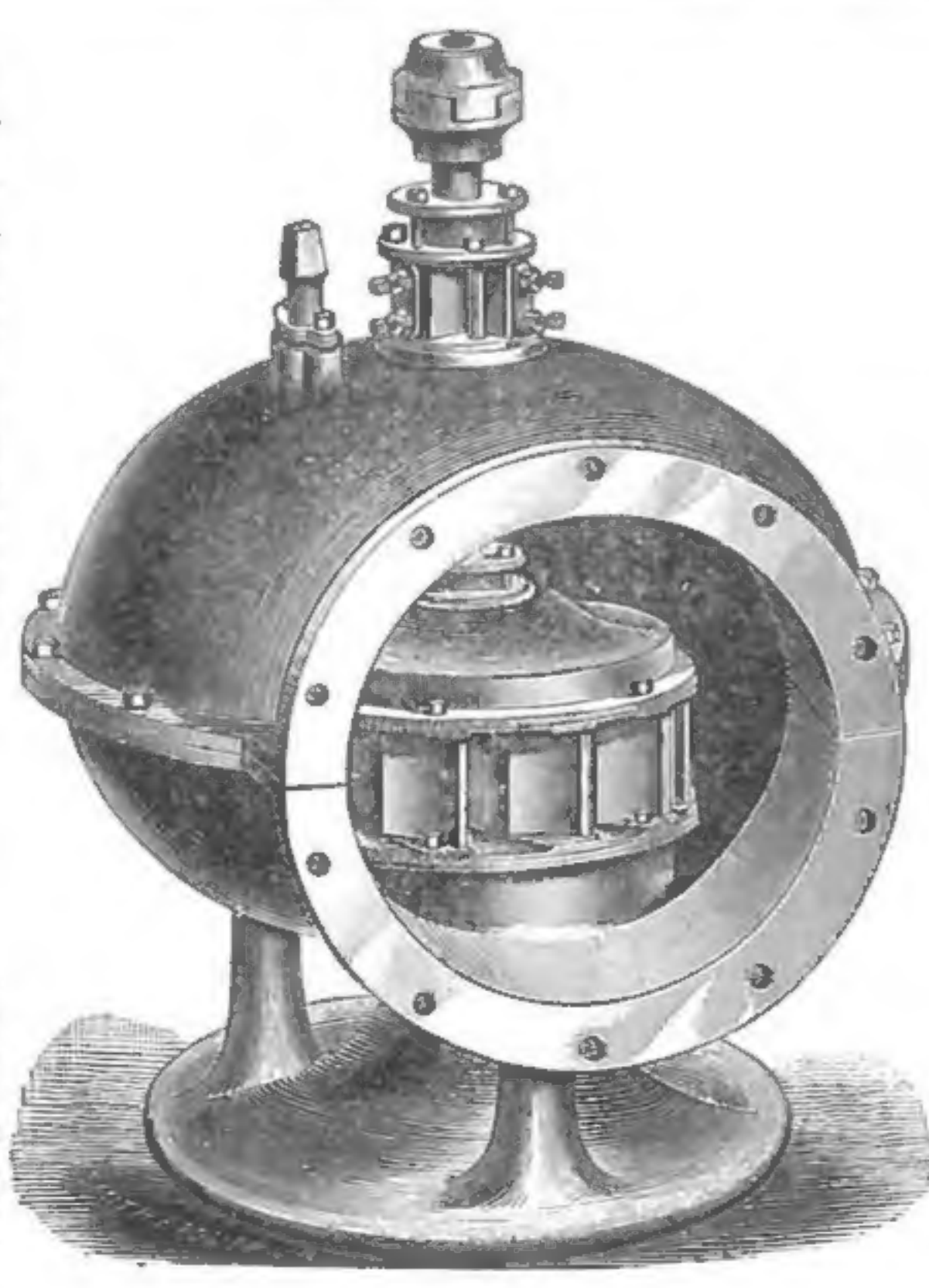
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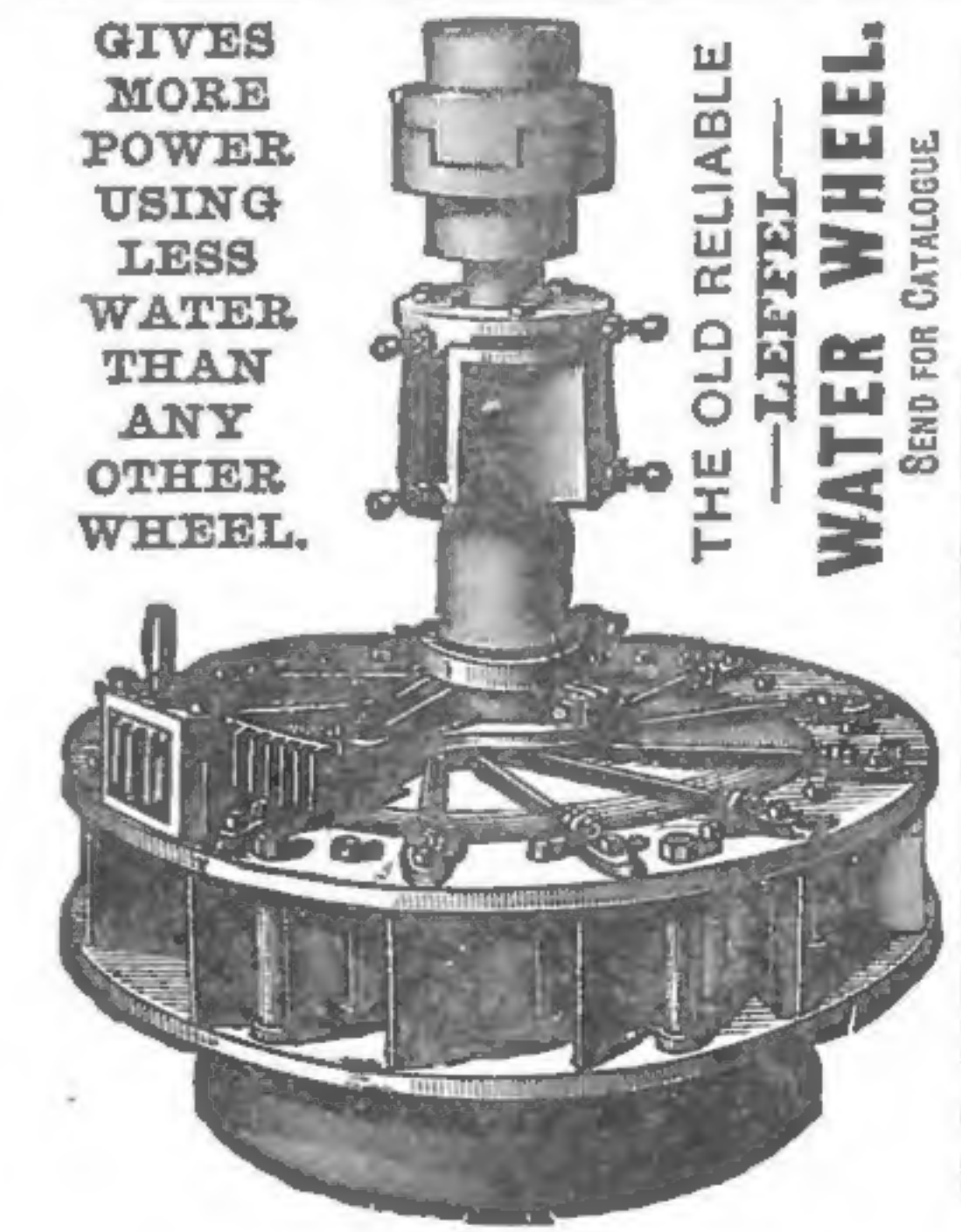


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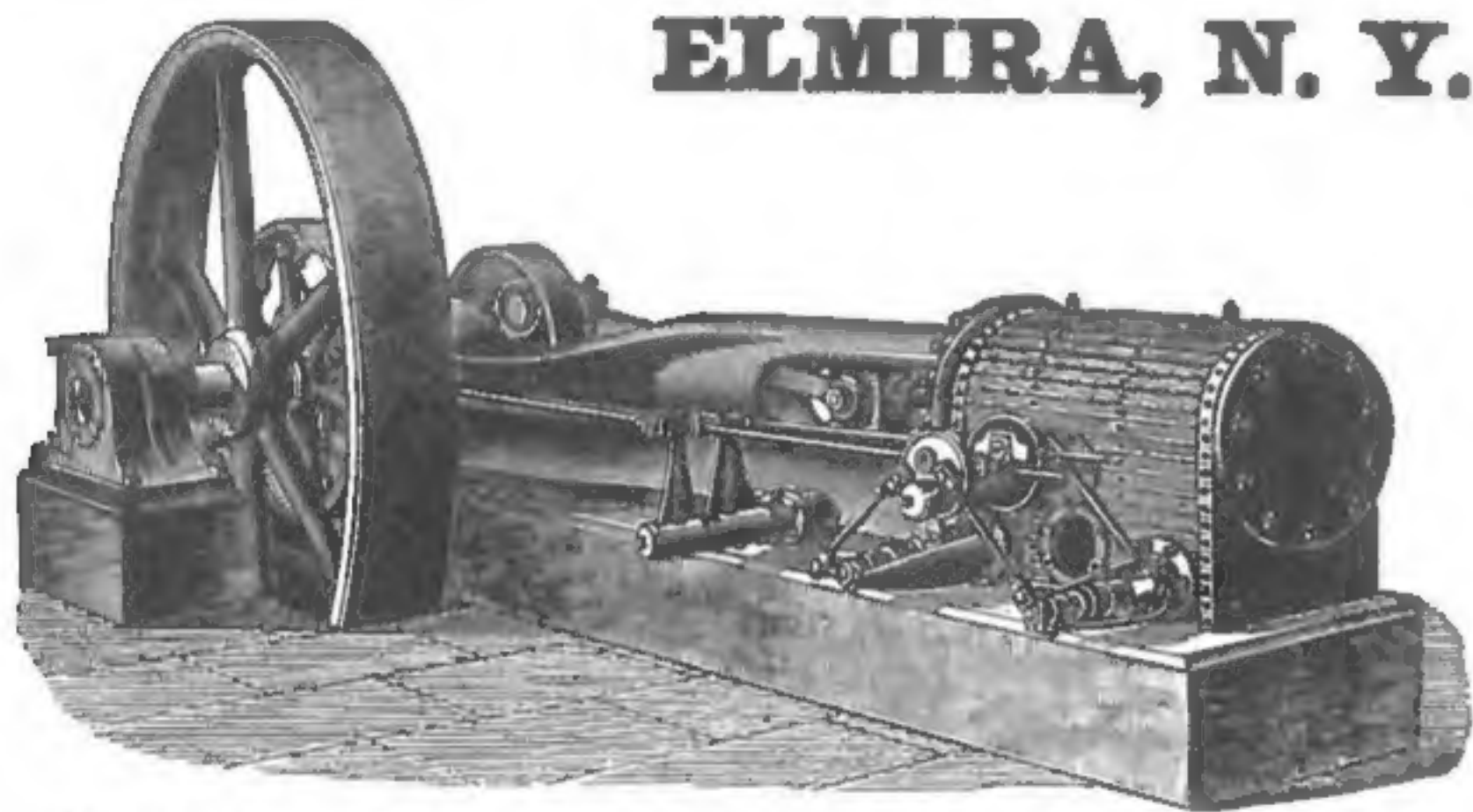
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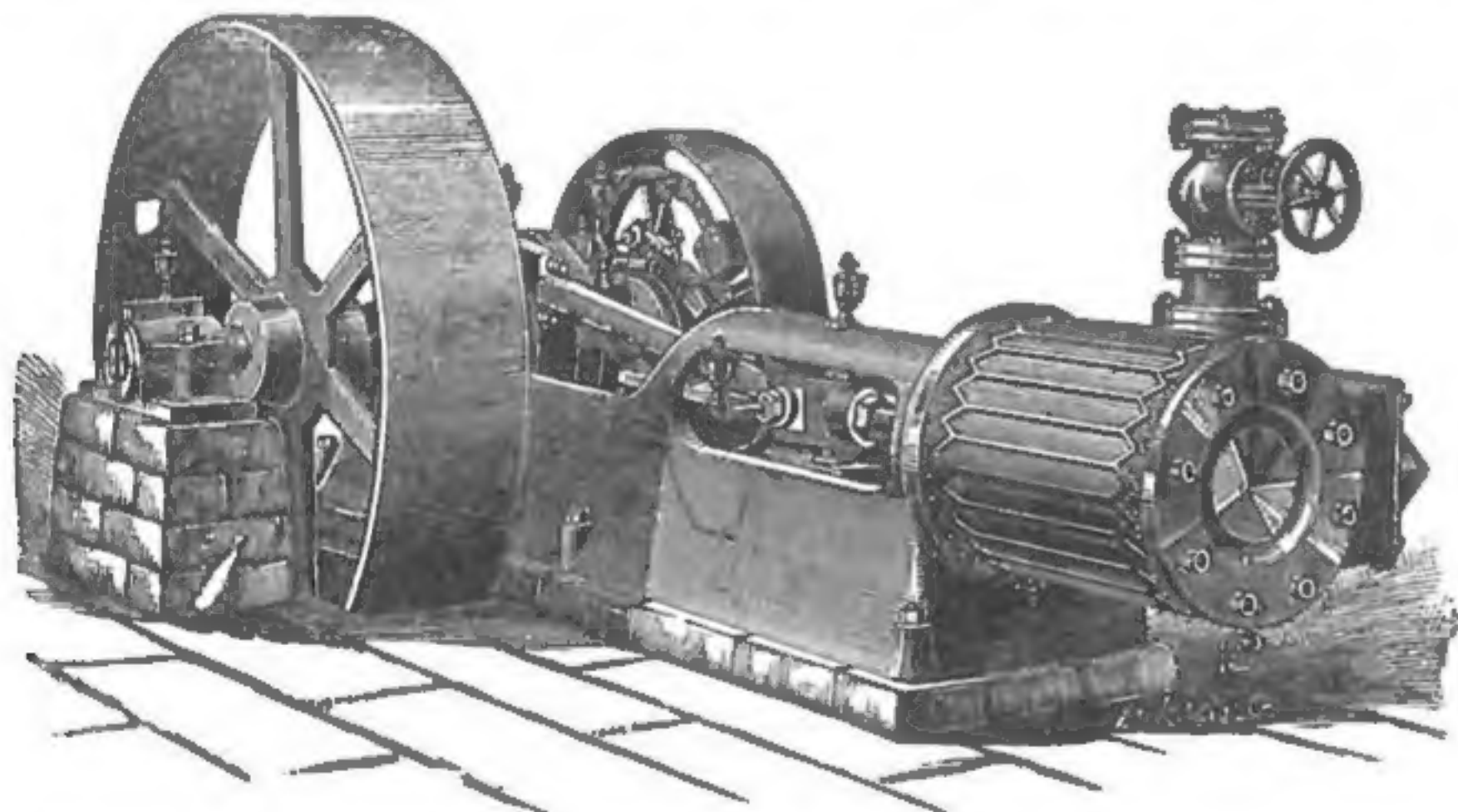
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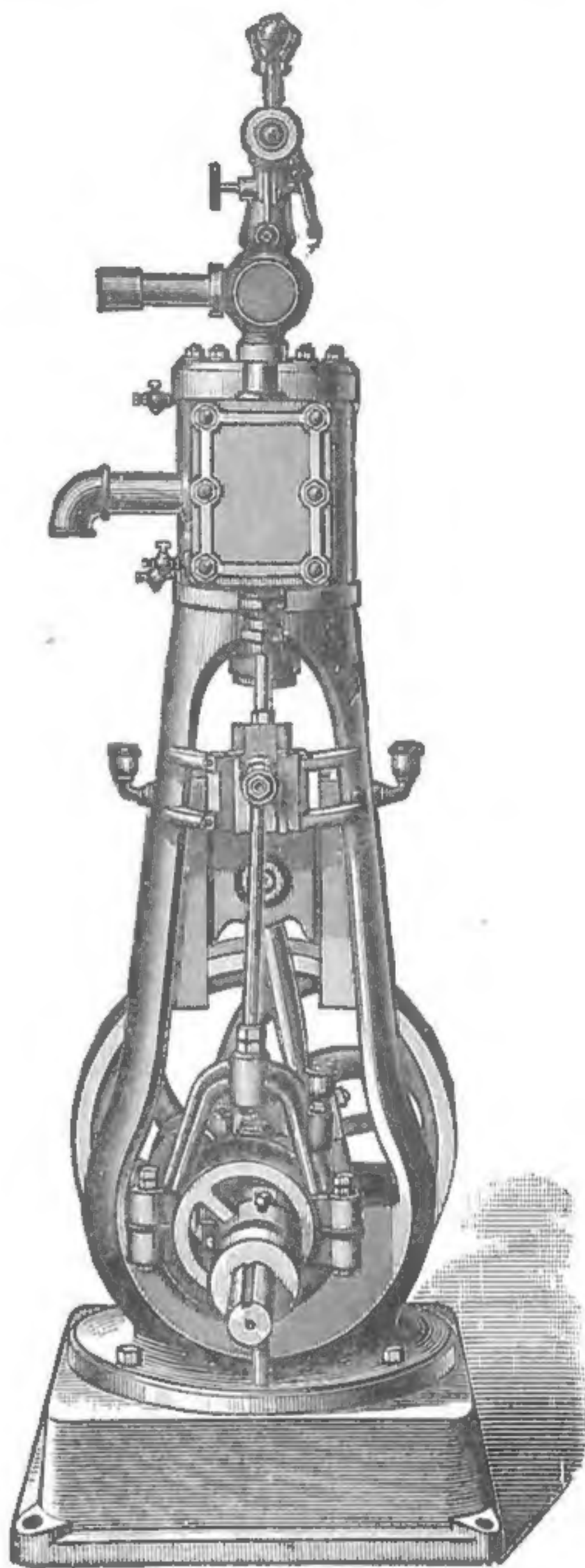
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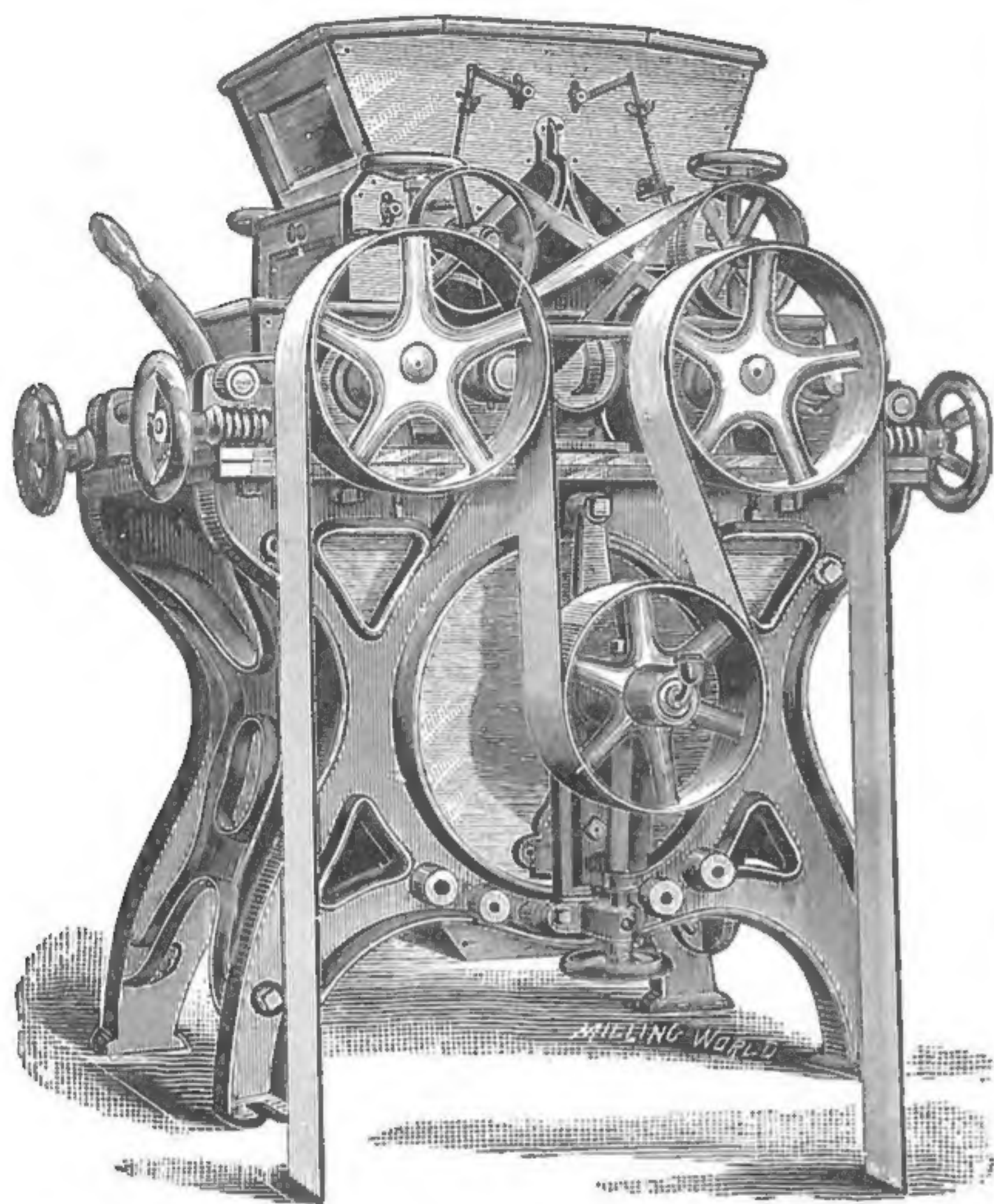
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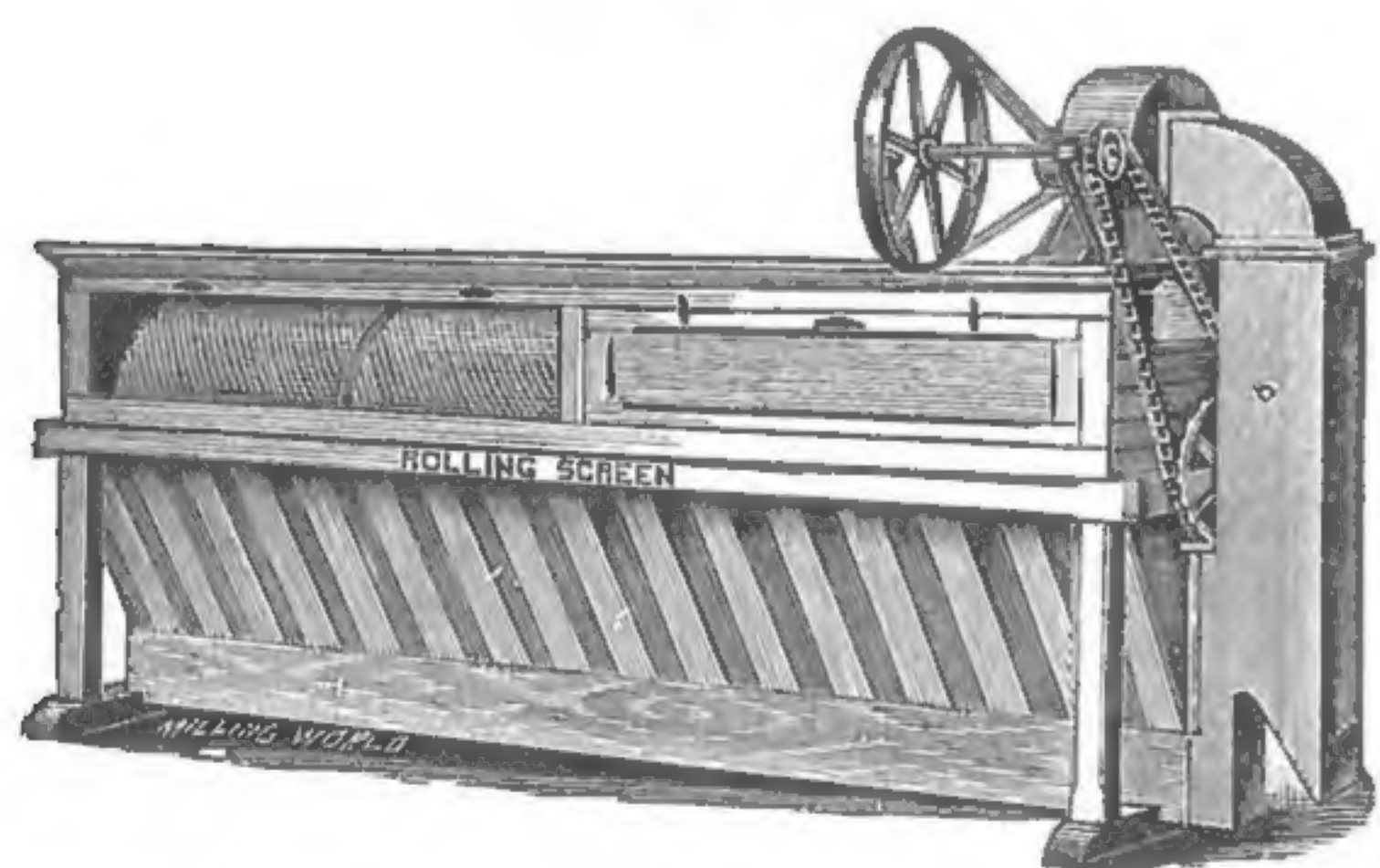
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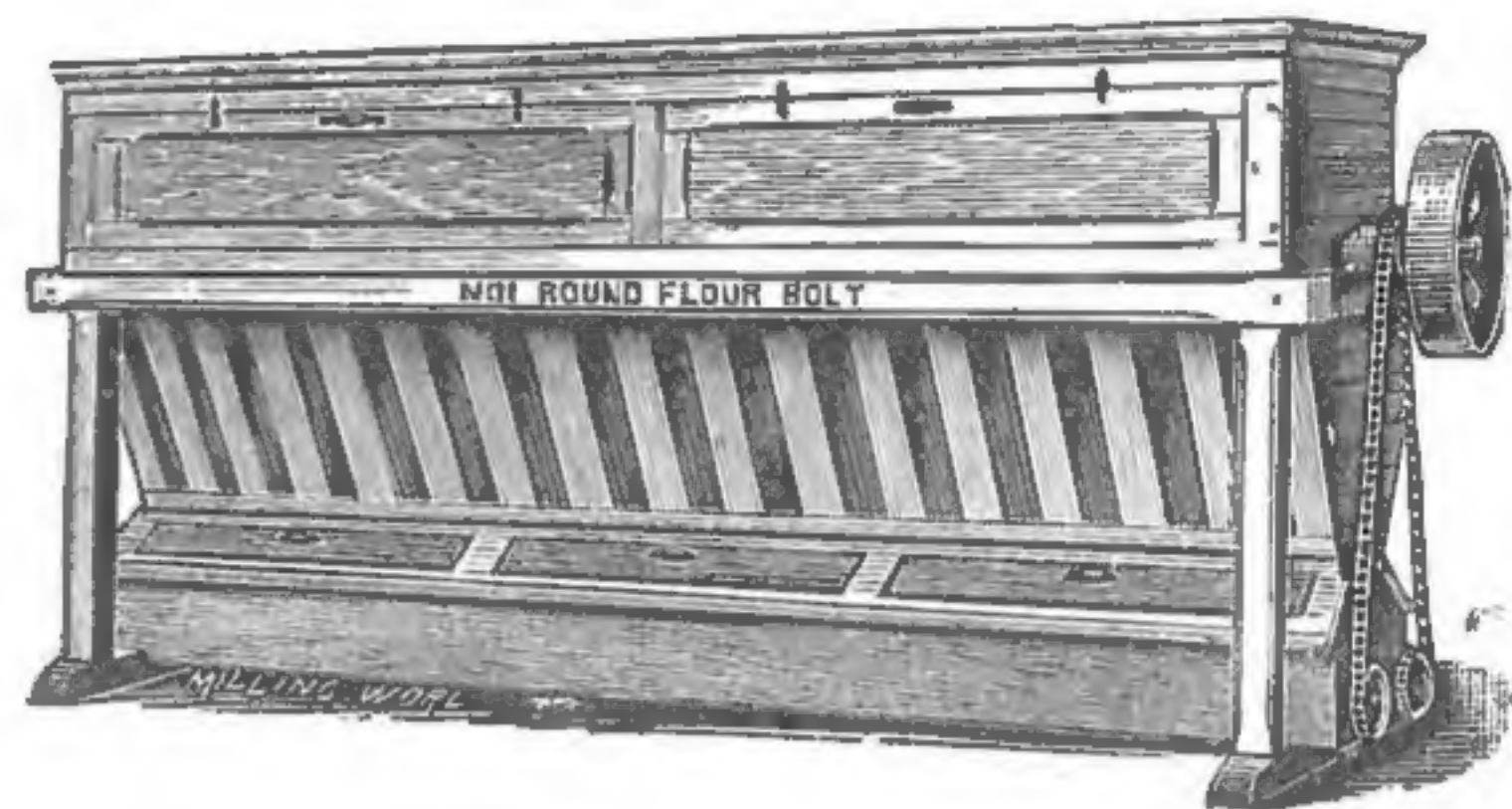
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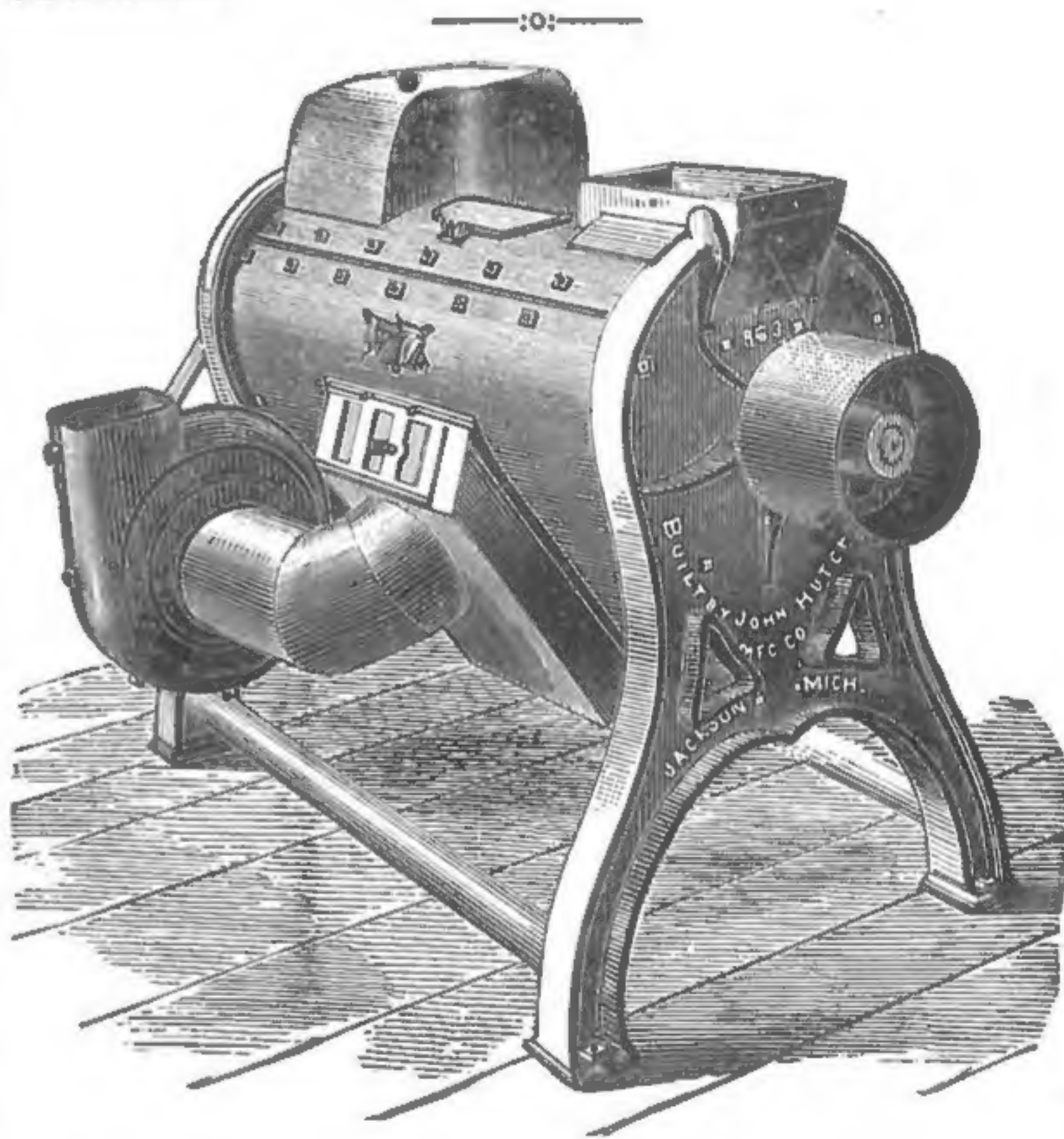


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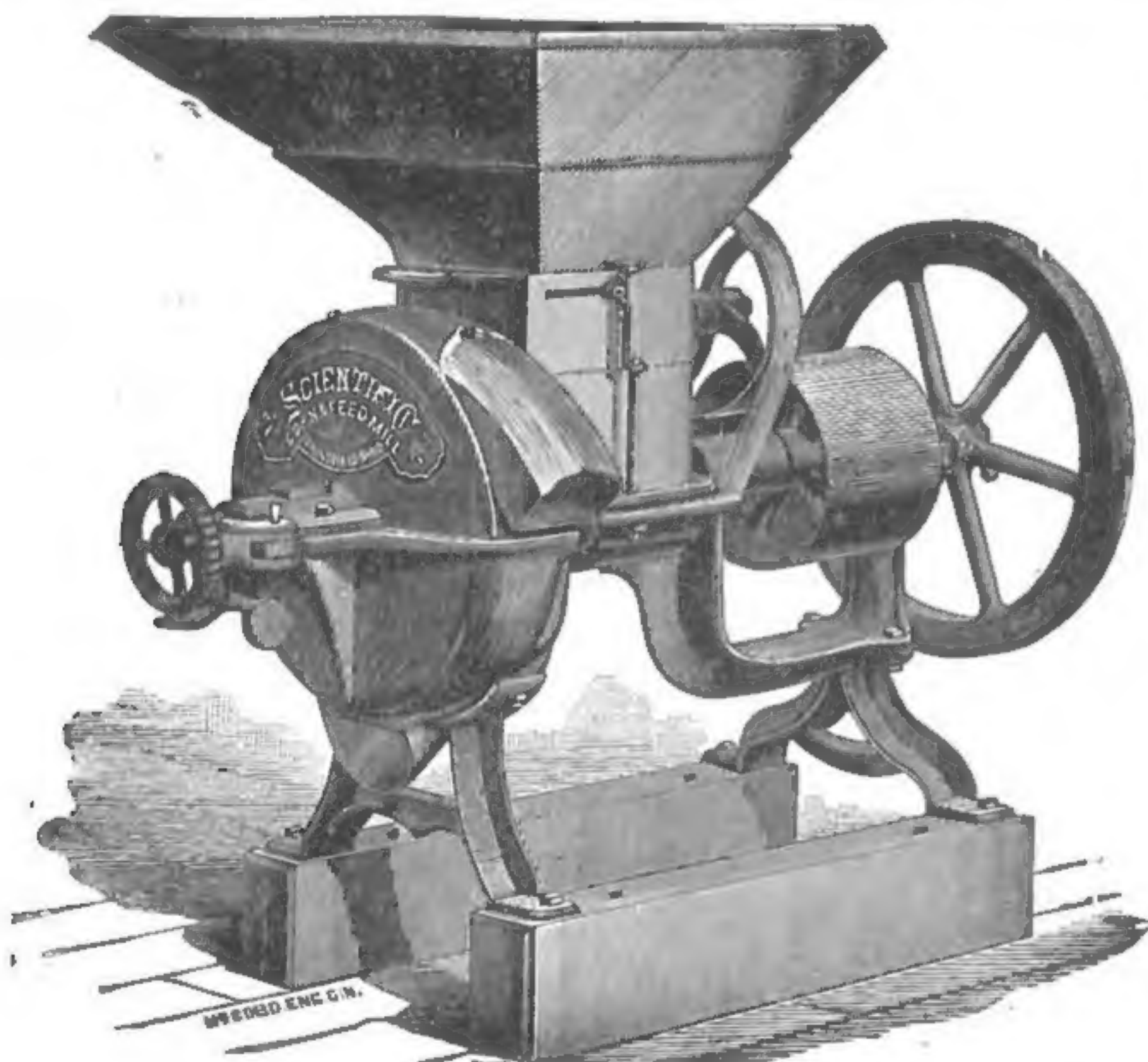
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